NOV 4 1919

Registered at the G.P.O., Sydney, for Transmission by Post as a Newspaper. Published Weekly.

THE

MEDICAL JOURNAL OF AUSTRALIA

(With which "The Australasian Medical Gazette," and "The Australian Medical Journal" are incorporated.)

The Journal of the Australian Branches of the British Medical Association

VOL. II.—6TH YEAR—NO. 14. SYDNEY: SATURDAY, OCTOBER 4, 1919. PRICE 6D.

RAW CATGUT

DE-FATTED

We have just landed good supplies of the best quality Catgut of **English** manufacture in the following sizes:

Nos. 000, 00, 0, 1, 2, 3, 4, 5, 6

In Packets containing 12 strands each 10ft. long.

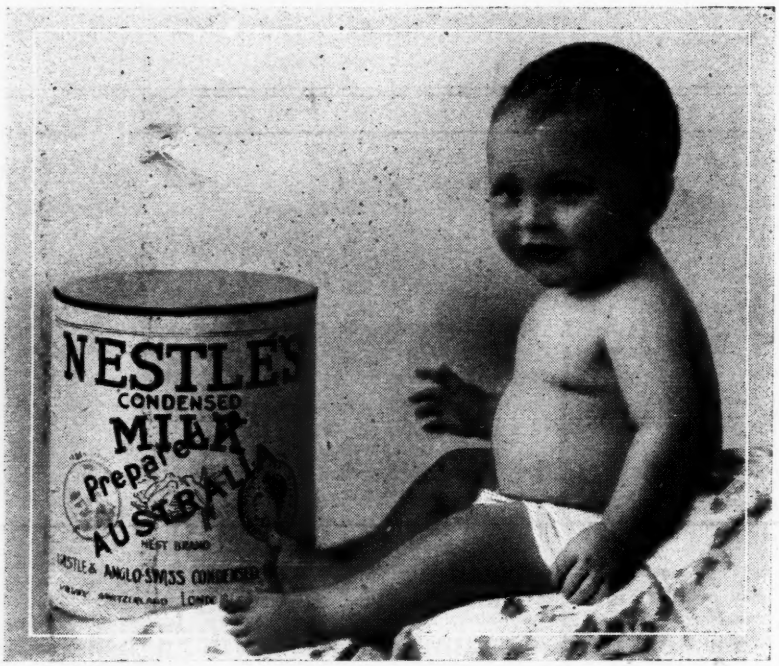
ALLEN & HANBURYS Ltd.

SURGICAL INSTRUMENT DEPARTMENT

B.M.A. BUILDING : ELIZABETH STREET, SYDNEY

A Beautiful Baby —

Australia's Best Immigrant



Fed from Birth on

Nestle's Condensed Milk

Richest in Cream!

Made in Australia, by

Nestlé and Anglo-Swiss Condensed Milk Co.

Sydney, Melbourne, Adelaide, Brisbane, Perth and Hobart

THE MEDICAL JOURNAL OF AUSTRALIA.

VOL. II.—6TH YEAR. SYDNEY: SATURDAY, OCTOBER 4, 1919. No. 14.

WAR NEUROSES AND CIVIL PRACTICE.[1]

By J. W. Springthorpe, M.A., M.D.,
Melbourne.

I.—WAR NEUROSES.

Introduction.

For some 40 years past, I have been specially concerned in functional nervous diseases, not only from their elusive but abiding interest, but also from their organic relations at the centre, as well as their excursions into mental diseases at the periphery. Sufficient and, I hope, instructive illustrations can be gathered from the papers set out in the references at the end of this article. For some thirty years, also, I have brought prominently under the notice of students the fundamental importance of the psychological factor in disease and its treatment, as may be seen from both volumes of the text book in which I crystallized my experience up to the middle of 1914.

Since November, 1916, I have been in charge of Australian war neuroses in the Third Australian Auxillary Hospital in England, have visited the main special hospitals in England, have paid visits to similar hospitals at the British, French and American fronts, have exchanged views and experiences with such authorities as Hurst, Myers, Rivère, Collie and Fearnsides, in England, and Babinski, Pierre Marie, Briand, Boisseau and others in France, have made four reports to our own authorities and have presented a paper on "Suggestions as to the Better Treatment of Our War Neuroses" before the Inter-Allied Conference, which met in May, 1918.

Historical.

We entered this greatest of all wars with many soldiers temperamentally and even organically unfit for nervous strain and with a profession almost entirely untrained in psychology. We carried on under regulations that were not calculated to produce any rapid improvement. To the factors of strain, terror, horror, anxiety and fear of being afraid which were present to an unprecedented degree, were added fresh ones, such as gassing and the hell of high explosives. Even when malingering became no longer a sufficient explanation of nervous overthrow in the absence of noticeable wounds or contusions and after the medical officers at the front were directed to send all men with nervous lesions back to certain special hospitals not far away, there was no general guide or nomenclature and no special staff. The larger number of men never saw such hospitals and were sent back to one or other of the forest of special or general hospitals in England, where, under all sorts of partial and confusing diagnoses, they received, often for many months, any and almost every kind of treatment except that which they would now receive from experts. Is there any wonder that, as with both French and German armies (though probably there to a less degree) there were many, many cases that were and still remain very unsatisfactory? To such an extent did the confusion spread that hysteria, neurasthenia, shell shock, concussion and mental disturbance became more or less synonymous, though vitally different in factors, manifestations and treatment, while important functional addenda to innumerable other diseases were disregarded because unrecognized. It is scarcely too much to say that, except in certain favoured spots, chaos brooded over the neurologically afflicted army and that, even yet, darkness remains over no small a portion. Numerically, even as it appears from such unreliable statistics, it was estimated in England by Sir John Collie that out of some 170,000 pensioners, some 15% were suffering from war neuroses, while in Canada there was a similar 12% from some 4,000 cases finalized in Quebec. Amongst the Americans, it has been stated that the percentage was about the same. I have no French statistics by me, but M. Briand informed me that some 14,000 of the *névro-psychiatrique* class had passed through his hospital alone. As regards Australia, I have no reliable statistics.

Proper Classification.

In Appendix "A" I give the classification which I drew up in my first report to the Director Medical Services in November, 1917, and which I subsequently advocated before the Conference in May, 1918, with explanatory descriptions in the case of the neurasthenic, psychasthenic and shell shock recently taken from Hurst's latest definitions (Seale-Hayne: Neurological Studies, No. 2). It is something to be able now to present it as representing accepted English conceptions. The French, whose definition was earlier and methods more thorough, classed our "hysteric" class (which was much larger among their sufferers) as "*psycho-névrose, pithéatigue* or *functionel,*" and combined our traumatic and shell shock under the different heading of "*névro-psychiatrique, emotionel, commotionel.*" They treated the patients in separate hospitals and in a different manner and left the patients corresponding to our "neurasthenics" and "psychasthenics" to be dealt with either in general or other hospitals. As regards relative numbers, the specialists at Netley, Aldershot and Golders Green all agreed that there were, roughly, 30% hysterics to 70% psycho-neurasthenics. At a special meeting of the Neurological Society, Fearnsides described "the restless, discontended, hypersensitive psycho-neurasthenic with his subjective worries and fears, amenable to sympathy," as well-nigh incurable, if treated as "the passive, suggestive hysteric with his fixed circumscribed objective difficulties responsive to suggestion." Add the "shell shock" which may be either or both with special-symptoms of their own, mingle them indiscriminately with the "traumatic" and the temporarily "knocked out" and fail to recognize the psychical element in many organic, and you have the confusion which so long prevailed in nomenclature and hampered recovery. In Appendix "B" I give the war neuroses card which I prepared in November, 1917, with a view to securing

[1] Being a Lecture delivered in the Melbourne Hospital Post-Graduate Course, August, 1919.

continuous, full records and facilitating subsequent diagnostic treatment. It would be difficult to overestimate the value of such a guide, had it been in common use.

Causation.

So far as war neuroses are concerned, not only in their proper manifestations, but also in their connexion with injury and even disease generally, this war has shown the overpowering part often taken by emotion and suggestion, as compared with concussion and commotion. Such a conception was, of course, quite unexpected by a materialistically educated profession and with its abundance of proof and wide extension, it should lead to one of the greatest advances in treatment brought about by the war.

Treatment.

In subsequent papers I propose to deal with the great question of treatment as becomes its importance. For present purposes, I can but outline the main subdivisions: suggestion, re-education, psycho-analysis, physio-therapy, occupation and systemic satisfaction, each personal in its application and fufilment.

(*a*) Babinski, Roussy, Boisseau and Hurst may be taken as illustrating the use of treatment by suggestion. They have shown how the conditions that can be produced by suggestion, may be cured by suggestion and, by improved methods of preparation, execution and fixation, they have extended the area of prompt cure far beyond paralyses, contractures, mutism, clonic spasms and the like to stammering, bent back, tremors, amnesia, dreams and even cases of injury attended by vasomotor and trophic changes. The illustrations and the letter-press to be found in the references given at the end, will not only carry amazement, but conviction to the unenlightened. It will be seen that in an extraordinary number of cases and to an almost unbelievable extent, symptoms and conditions may be switched on to almost all sorts of wounds, injuries and conditions of pain, which, though primarily protective, soon, by inhibition and immobility, become regarded as organic, are perpetuated by suggestion and are promptly curable, even months and years after electricity, massage, fixation, kataphoresis, diathermy, radiant heat, all sorts of baths and innumerable ingenious orthopædic devices have been used more or less in vain. Many gastric, cardiac and almost system-wide symptoms similarly produced and similarly misunderstood, are similarly cured. One would fancy oneself at Lourdes, were one to see, as I have seen, the plaster casts, foot tracings, photographs and cinemas of Boisseau and Roussy, or the similar records at Newton Abbot under Hurst.

My own experience has included examples of most, if not all, the classes of cases above mentioned and though our preparation, manipulation and fixation have been less systematic and under less advantageous conditions, similar recoveries have been obtained, even after the lapse of anything up to two years.

(*b*) In the hysteric re-education represents only the terminal fixation and functional development, but in the psychasthenic and "shell shock" patient it constitutes, in an atmosphere of cheerfulness and hope. the progressive attempts to rebuild mentally and physically. It is more laborious, calls for wider powers and is naturally slower in its effects. But in many it is the only way to improvement. In practice, from failure to make a correct diagnosis, it too often replaces entirely the rapid, almost instantaneous resurrection, by persuasion and suggestion.

(*c*) Psycho-analysis is the systematized attempt to discover psychologically the cause and operations of the internal strife, semi-conscious or subliminal, which is postulated as the main cause of the morbid mental substratum, and to apply the appropriate corrective. It is not too much to say that the war neuroses have completely shattered the original perverted notion of a sexual basis and driven such Freudism to oblivion.

It is also true that everyone who has made extensive use of psychology in his treatment, has been acting on psycho-analytical lines, without, in most cases, finding it necessary to resort to its official formulæ and, indeed, gaining satisfactory results more speedily and less objectionally by individualizing his inquiry in response to the personal character in each case. Carried out in this manner and not ceasing until it has prepared the patient for and placed him in the most suitable environment, no mean but no impossible task in the majority of cases, this method of psycho-analysis, though quite unnecessary for resurrection, becomes often invaluable for complete re-education. In England it flourishes at its best at Maghul.

(*d*) Physio-therapy probably never had the vogue that it has acquired during this war. Its value was always considerable and has increased with improved and extended methods. But, for present purposes, it may be dismissed with the comment that, so far as the neuroses are concerned, it is nearly always of secondary importance and is mainly curative by the suggestions which it carries, and the functional activity which it promotes. Used, as it too often has been, as a directly curative means, it not only fails to cure, but is actually harmful by taking the place of more necessary procedures.

Two illustrations may be given. So many neurological cases were treated surgically and orthopædically in France with little success or very slow progress, owing to the neurological factor being ignored that finally an order was issued that all these patients should be examined by a neurological expert before orthopædical or surgical treatment was instituted. Again, Hurst found all cases of bent back promptly curable by intensive suggestion, whilst the Bath physicians reported that with all their hydrotherapy, massage, electricity, etc., they had failed to cure a single one. The institutions at Shepherd's Bush and at Great Portland Street and the curative installations at most general hospitals well illustrate this phase of treatment.

(*e*) Occupation and exercise, mental and physical, suited to the individual in kind and degree, are necessary adjuncts. Here, again, the main value is that of the interest and the motive in which they are judiciously wrapped up. This is not the time or place to touch upon their variety and their special values. Their use is now universal.

(*f*) A special renown has been achieved by the war method of dealing with cases of "soldier's heart" by

means of graduated physical exercises. In some of these cases the factor had been strain or infection. In many others it has been neurological; and, perhaps in most, a combination of the two. Such experts as Osler, Clifford Allbutt and Mackenzie, discarding traditions and looking facts in the face, introduced conceptions of procedures that were nothing less than revolutionary. For these patients, who are without œdema of legs or lungs, but are painfully conscious of dyspnœa, palpitations, vertigo, cardiac discomfort and fatigue with easy tachycardia, they found that rest was required only for exceptional cases and special occasions; that ordinary systolic murmurs were without value; and that the physical examination of the heart was the least, but graduated exercises the most valuable means of assessing the capacity of the heart for work, whilst the effects of digitalis were negative or non-existent and elaborate instruments of precision practically unreliable. The results, as tested, recorded under skilled instructional observation, were remarkably good and free from any serious accident in 3,000 consecutive cases. Since November, 1917, I have treated all my cardiac cases on these lines, with similar success and append a copy of my cardiac history sheet and exercise card. In addition, I made use throughout of my phonetic method of showing and reading the condition of the heart muscle (*vide* Text Book, Vol. II., page 619), which I found of great service in sifting the cases of pure nervous overaction from those combined with or entirely due to some muscular insufficiency, an important therapeutic point, since in pure nervous cases the patients could not stand the cardiac exercises, but required and were benefited by others in which the aim was to promote nervous control. For want of some such differentiation, I have seen cases treated, even at the special cardiac hospital at Colchester, which were neurological and not cardiac, except in manifestations.

Appendix A.

CLASSIFICATION OF WAR NEUROSIS.

After the **elimination** of (1) **organic brain conditions** of any kind, (2) the **mentally and physically sound but temporarily "knocked out,"** and (3) the **malingerers,** in whom "the party's criminal will" feigns symptoms that do not exist,

we have left

(A) **The neurasthenic**—where physical strain or infection lights up a neurotic disposition—manifested by abnormal, physical and some mental fatiguability, and irritability of the nervous system.

(B) **The psychasthenic**—where psychical strain has upset a psychopathic disposition—resulting in inability to regulate ideas and actions, with difficulty in concentration, and, at times, mental and motor "tics," phobias, and attacks of apparently causeless emotion (as anxiety, horror, terror, etc.).

(C) **The neuromimetic** (badly called **hysteric**)—with dominant ideas, producible and removable by suggestion.

(D) **The traumatic**—where there has been concussion, local or general, of all degrees of severity—with the usual symptoms.

(E) **Shell shock**—where high explosives have produced, more by emotivity than commotivity, a special syndrome of symptoms, generally, if not always, perpetuated by suggestion.

These **varieties** are **frequently combined. Differentiation** requires experience and expert knowledge. But it is **essential** for early and satisfactory treatment.

In concluding this outline of treatment, it seems well to add that the essence is to gain confidence, to persuade towards optimism and a true understanding and, with the help of the most appropriate accessory means, to build up and secure the most satisfactory tory future.

II.—CIVIL PRACTICE.

The soldier's psychology, both in health and in disease, has been the outstanding medical feature of the war. Though naturally the incidence is less concentrated and the manifestations less startling in civil life, the factor is still there and, in view of its hitherto general neglect, calls for little less than a revolution in our general principles of practice.

(*a*) Henceforward, no up-to-date medical school can leave psychology, any more than physiology, out of the curriculum, no teaching hospital can remain without its psychological department, and no up-to-date medical practitioner can leave this priceless talent buried in the dust of ignorance and fight his battle against disease with this, his right arm, tied behind his back.

(*b*) To most surgeons the potency and extent of this factor will come as a complete surprise, just as it has come to their military *confrères* who have advanced with the times. Hurst's, Roussy's and Boisseau's series of cases, as illustrated in my references, must convince even the most incredulous. They prove

Appendix B.

Specimen of Card Recommended for Use by Medical Officers.

WAR NEUROSES CARD.

This card is to be signed by M.O.'s in charge in ..... Hospitals or Command Depôts, and forwarded with the History Sheet.

M.O.'s will be held responsible for its completeness and accuracy.

Strike out each item that is not applicable.

Name of Patient.....

Rank..... Unit..... Reg. No.....

In the family there has been	*Hysteria—Epilepsy — Insanity — Neurasthenia—Nervous Breakdown—Nervous Instability*
The patient himself *had/not*	become *Nervy under Strain of Service*
On ..... } he At ..... } had	*Neurasthenia—Hysteria—Shell Shock—* WITH *Wound—Burial—Gas—Concussion*
As a result he became	*Dazed—Unconscious—Maniacal—Dumb—Deaf—Stammering—Blind—Amnesic* — had *Tremors—Headaches* (frontal occipital)*—Insomnia—Bad Dreams—Vertigo—"Turns"*
He still has	*Head aching, confused, dull—Tremors—Vertigo—Bad Dreams—Insomnia—Defective Memory—Lack of Concentration—Blind—Deaf—Dumb—Stammering—Sweats—Flushes—Palpitations—Gastric, Respiratory, Locomotive* troubles *—"Turns"—Neurasthenia—Hysteria*
He has developed	*Neurasthenia — Hysteria — Myoclonic Spasms — Delusions — Epilepsy — Petit Mal—Mental—Wasting*
Other special points noted are	*Hyper-thyroidism — Hyper-adrenalism — Defensive Reflex Acts* (jumps, flinches, etc.).

Signed as true and correct— Signature.....

Place..... Date.....19 Rank.....

beyond all question that conditions such as paralysis, contractures, venous and lymphatic stasis, œdema, abnormal reactions to electrical and mechanical stimulation, with perhaps stiffening of joints due to circulatory disturbances, with actual paralysis due to malnutrition, which sooner or later develope as a result of many injuries to soft parts, with or without bony involvement, many conditions calling for operation, minor as well as major, and even certain diseased conditions, are promptly curable by psycho-therapy. All these conditions had previously been considered as organic or due to localized tetanus or reflex in origin, but they are shown to be amenable to treatment even after many months, or years, of too early and continuous resort to massage, electricity, orthopædics and all kinds of hydro- and physio-therapy have proved useless. For fuller particulars, I refer you to Hurst's article in the *British Journal of Surgery* (April, 1919, pages 579 to 605).

(*c*) The same applies to medical practice, specially in cases manifesting psycho-neurological, cardiac and gastric symptoms, but by no means confined thereto. Symns (in reference, "Seale-Hayne Neurological Studies," No. 2) quotes cases diagnosed as rheumatism, myalgia, sciatica, gastritis, "D.A.H." (disordered action of the heart), fractured skull, cerebellar abscess, tabes, general paralysis, disseminated sclerosis, myelitis, appendicitis, laryngitis, aneurysm, spinal disease and concussion, rapidly cured by suggestion after failure under all ordinary drug treatment and after every kind of bath and electrical treatment, whereas he well said: "Mind is subservient to matter, it is the whirlpool bath or electricity that really matters." I could quote numerous cases from my own experience, both before and during the war, similarly improperly diagnosed and maltreated, similarly resurrected or, at worst, re-educated by psycho-therapy.

(*d*) The traumatic neurasthenics *et hoc genus omne* of railway and other accidents in which there are so often so many functional symptoms grafted on to frequently minor organic changes, will assume to many a new aspect. Here compensation takes the place of the military "return to the front." In most other respects the cases are exactly parallel. Similarly, it is not malingering that is the driving force, but the suggestive reflex, with its inhibition, the frequent arrest of function and, above all so far as continuance is concerned, the replacement of true suggestion by the adverse hetero-suggestion of an atmosphere of seriousness and overcareful, overactive —and thus injurious—treatment. Perhaps, if the

Appendix C.

NEUROLOGICAL HISTORY SHEET.

No. in Admission and Discharge Book	Residential No. Rank Surname Chr. Name Unit Age Service
Year	
Station and Date	Disease
Family Factors	
Personal History	
Since Enlistment	
Present Disability	
EXAMINATION—Symptoms	
Intelligence.. ..	
Motion	
Sensation	
Equilibration ..	
Cranial Nerves..	
Pupils	
Reflexes	
Trophic	
Vasomotor	
Neuro-mimetic, etc.	
Electrical	
Other Conditions	
Weight..	
Main Trouble ..	

Appendix D.

Cardiac History Sheet

No. in Admission and Discharge Book	Residential No. Rank Surname Christian Name Unit Age Service Diagnosis
Family Factors	
Personal History	
Since Enlistment	
Present Disability	

EXAMINATION—

Symptoms ...

Inspection ...

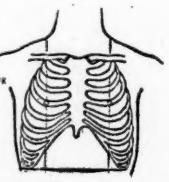
Palpitation ...

Percussion ...

Auscultation ...

Rhythm ...

Lying	Standing	after Exercise	Resting



Pulse ...

Blood Pressure

Urine ... ...

Other conditions

Pulse every 2 hours if tachycardia

Weight

profession be too slow in adapting itself to the new light and the improved methods, the "counsel for the other side" may show cause why the main cause of the disability has been the treatment and not the accident.

(*e*) A revolution may also be expected in lunacy practice. The unfortunate insane will no longer wait until their false beliefs have altered their whole outlook or crystallized down into delusions. Ancestry will receive its due, education and environment receive special attention and a rational psycho-analysis seek, discover and set right wherever possible, the mental conflicts which are so often the necessary antecedents. In addition, early treatment without certification is no longer the dream of a few enthusiasts: it has become the practice in confusional and other more distinctly mental war conditions. Even the present, so often almost chronic asylum patient may at times find in an improved, extended psycho-therapy a new, refreshing and efficient mode of treatment.

(*f*) All special branches of practice and of treatment must henceforward, remember, rely on the potency and even at times the supremacy of the psychological factor. It is not only in war neuroses that oculists, aurists and specialists of all kinds meet with cases which they pronounce incurable or slowly and laboriously pull round to functional efficiency. Such cases are not unknown in civil practice and the psychologist is always valuable and at times "a miracle-worker." Now and then quacks, with all their ignorance and cupidity, do what the profession have, for want of knowledge, failed to do honourably and deliberately.

Such is a brief summary of some of the main psychological suggestions of the war. Henceforward these experiences become the possession of the general practitioner and if he fails to avail himself of its invaluable assistance, it will be at his own peril and to the detriment of the patient.

Finally, a few words as to the civil treatment of the disabled soldier. Here the psychological factor is not only latent or normally operative, but in many, from strain, infection and emotion, it has become pathological. If in ordinary patients it demands recognition, consideration and treatment, how much more so in the cure of those who have done and suffered so much for their country? The initial local reception and honour which they received was that some were treated as malingerers and discharged without any pensions to come up for reconsideration and necessary treatment after many months of dissatisfaction. Many went under strains for which they were untested, and into environments for which they were unfitted, largely without any guiding and suitable line of treatment. Many are still in an unsatisfactory condition, partly perhaps because their future remains still unsettled, but more from want of recognition of their psychology and continued neglect of its requirements. Now that the real facts are known far and wide, let the profession which responded so nobly to the call and is, after all, the best of all professions in discharging its obligations, begin its new life of investigation and practice in these cases. It will soon find the interest and value and extend the routine

Appendix E.

CARDIAC EXERCISE CARD.

Name..... Ward..... Bed.....

Diagnosis..... Treatment.....

Date.....

Graduated Exercise No. A15—D30

Date .. ..

Dyspnœa .. .. .. before
after

Palpitation .. .. .. before
after

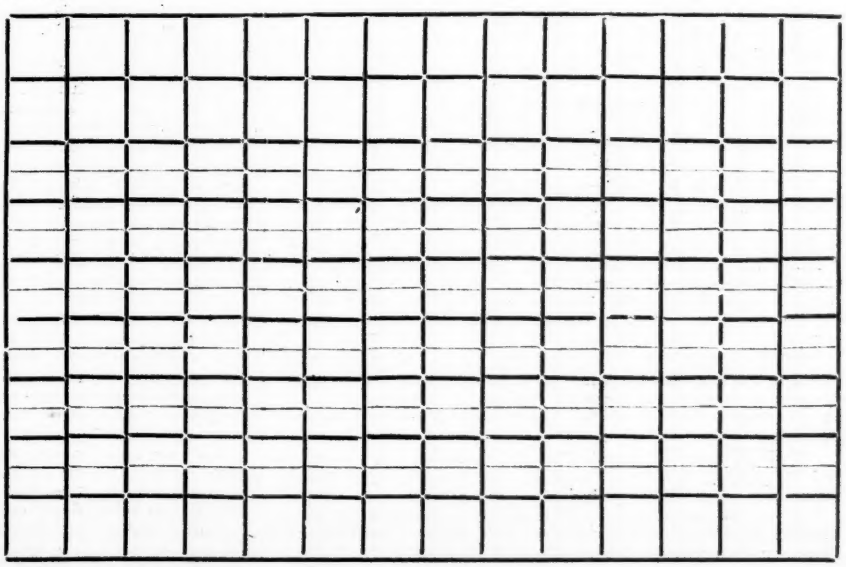
Vertigo .. .. before
after

Pain .. .. before
after

Fatigue .. .. before
after

Pulse .. .. before
after

After 5 minutes



EXPLANATORY SIGNS—O, none; •, slight, +, marked; >, increased; =, the same; <, less.

practice to its patients generally. A nationalized profession may be good, but how imperfect beside one in which the triad of medical science is anatomy, physiology and psychology, of which the greatest is psychology?

References.

PRE-WAR.

"The Psychic Treatment of Nervous Diseases," Dubois, 1909.
"Mental Therapeutics—Use and Abuse," *Australasian Medical Gazette*, October, 1905, J. W. Springthorpe.
"Therapeutic Use of Suggestion," *Intercolonial Medical Journal*, April, 1907, J. W. Springthorpe.
"Treatment of Early Mental Cases in General Hospital," *Intercolonial Medical Journal*, April, 1902, J. W. Springthorpe.
"Therapeutics, Dietetics and Hygiene," J. W. Springthorpe, Melbourne, 1914, Vols. I. and II. (*vide index*).

WAR VIEWS.

"Les Acro-Contractures et les Acro-Paralysies. Roussy, Boisseau, etc., *Bulletin Besançon*, 1917.
"Mental Hygiene and Shell Shock," Mott, Chadwick Lectures, July, 1917.
"Emotions and the War," Dupré, *American War Magazine*, Paris, August, 1918.
"Etiology and Treatment of War Neuroses," Hurst, *British Medical Journal*, September, 1917, and recent book.
"Shell Shock and its Lessons," Elliott Smith and Pear, *University Press.*
Review of Foreign Press, Monthly Supplements issued by War Office, January, 1918, on.
"La Lutte Prophylactique contre l'Hystérie dans le VIIe Région durant l'Année 1917," par MM. Roussy, Boisseau, Oelnitz, *Bulletin Besançon*, March 15, 1918.
British Journal of Surgery, April, 1919, papers by Lieutenant W. Cuthbert Morton and Lieutenant-Colonel A. F. Hurst.
The different volumes of *Seale Hayne Neurological Studies.*
"Hystérie Pithiatisme et Troubles Nerveux d'Ordre Réflexe," by Babinski and Froment, Paris, 1918.
Léri, "Commotions et Émotions de Guerre," Paris, 1919.
"Traumatic and Emotional Psychoses," by J. Rogus de Fursac, translated in *American Journal of Insanity*, July, 1918.
British Medical Journal, March 23, 1918, page 345.
Medical Research Committee Report, No. 8.
British Medical Journal, September 23, 1916, April 7, 1917, March 30, 1918.
Reports to D.M.S., November, 1917, to D.M.S., June, 1918, to D.G.M.S., June, 1918, and to D.M.S., October, 1918.
Paper, "The Better Treatment of our War Neuroses," Transactions of After-Care Inter-Allied Conference, May, 1918, J. W. Springthorpe.

Reports of Cases.

SUPERACUTE PULMONARY ŒDEMA.

By **A. R. Southwood, M.B., B.S. (Adel.),**
Resident Medical Officer, Broken Hill and District Hospital.

Dieulafoy in his "Textbook of Medicine" gives an interesting and lucid description of a rare condition which he terms superacute pulmonary œdema. It is the transudation of blood serum into the alveoli and interstitial tissue of the lungs. Its main cause is nephritis, but cardiac disease may give rise to a congestive form of it.

Œdema of the lungs may be only an incident in a case, as it is when associated with the generalized œdema of acute nephritis or of heart disease. The superacute form is distinct from this. Dieulafoy lays stress on the following points:—

(1) Suddenness of onset. There is generally no warning of its approach. Only rarely is it preceded by cough, dyspnœa, râles or other sign of pulmonary disorder.

(2) Its occurrence as an isolated accident in chronic nephritis. It is rarely associated with severe uræmic symptoms or with marked œdema of other tissues.

(3) The previous history of symptoms of "Brightism" or latent nephritis. These may be many and varied, and include general malaise, frequent headaches, failing eyesight, etc.. The blood pressure is high. The urine is usually pale and of low specific gravity; it contains a little albumin and a few casts, though both these signs may be absent.

(4) Seriousness. The onset is marked by cough and dyspnœa. It developes rapidly. The cough becomes incessant. There is profuse expectoration of a pink frothy fluid: this is characteristic. Without active treatment, and often in spite of it, death from asphyxia ensues in a few minutes or a few hours. The patient literally drowns in his own serum.

The following case, occurring in a patient in this hospital, shows a history almost identical with that of a case quoted by Dieulafoy[1]:—

S.D.B., engine driver, 52 years, was admitted to a medical ward on August 6, 1919. His main complaint was that his eyesight had been failing for two months; he could not see to read. He also had a feeling of general bodily weakness. He said he was quite well till January last, when he experienced a "nervous breakdown"; he had had no business or other worries to account for that. He had a cough a few weeks before admission, but that had cleared up. He was subject to occasional headaches, inordinate thirst and itching of the skin. He thought he passed more urine than normally, having to micturate five or six times each night. There had been loss of sexual power and desire since January.

In 1900 he had rheumatic fever; in 1903 he had symptoms of plumbism while working at the smelting works at Port Pirie. He had never worked underground. He had been a moderate drinker, but gave no history of venereal disease. His wife and three grown-up daughters were in good health.

He was a thin, sallow man. His skin was dry and wasted; his tongue was furred. *Pyorrhœa alveolaris*, moderate in degree, was present. There was no blue line on the gums. There were no abnormal lung signs. The cardiac impulse was forceful; the apex beat was in the fifth space just outside the mammary line; no bruit was heard. No abnormality was detected in the abdominal examination. The knee-jerks were sluggish; Rombergism was absent. There was no œdema of any part. The blood pressure corresponded to 180 mm. of mercury. Ophthalmoscopic examination revealed blurring of discs and retinal vessels and a few small hæmorrhages. The urine had a specific gravity of 1,004, was acid and contained 1.5 grms. of albumin per litre, but no casts. He passed just over a litre a day.

The history and examination pointed definitely to chronic interstitial nephritis. The patient was placed on a light, ordinary diet, his bowels were made to act once or twice a day; he was allowed to dress and to sit or stroll about in the sunshine. His condition remained stationary for over a fortnight. The moderate albuminuria persisted; there was no rise of temperature and no cough. His eyesight became slightly more dim.

At 9 p.m., on August 24, he developed a frequent cough, shortness of breath and a feeling of tightness in the chest. Only an occasional râle could be heard; he was not cyanosed; there was no expectoration. Morphine, 0.008 gm. (gr. ⅛), was ordered and this relieved the distress. At midnight the dyspnœa was slightly increased. I then thought the case was one of uræmic asthma and a hot pack was ordered. Shortly after this had been given his condition suddenly became much worse. At 1 a.m. I was called to him again. He was propped up in bed, unconscious and pallid; his extremities were cold and moist. The respirations were 24 to the minute and were noisy; râles could be heard in profusion all over the chest. I ordered preparation for venesection, but he became worse so rapidly that I thought it useless to proceed with it. A pink froth issued from the nose and mouth; the breathing became slower and shallow. He died at 1.10 a.m., four hours after the onset of early symptoms and twenty minutes after the sudden severe symptoms. The pulse remained moderately good till quite near the end.

Post mortem examination showed the lungs to be heavy, bulky and impressed by the ribs, on section a large amount of red frothy fluid gushed out. The condition was uniform throughout both lungs, though slightly more marked at the posterior bases. The lungs were full of fluid. In the right pleural cavity was a small amount of straw-coloured fluid. The heart was a typical *cor bovinum*. The mitral valves

[1] Since the above was written a fatal case of acute pulmonary œdema following aspiration of the chest has occurred at this hospital.

were thickened and scarred, but quite competent; the coronary arteries and the musculature appeared sound. The aorta showed a mere trace of early atheroma. The liver surface was regularly granular, size normal; it felt heavy; the liver tissue was tough and grated on section. The kidneys were red and granular, tough and peeled with difficulty; the cortex was diminished. The spleen was enlarged, but of normal consistence.

The actual cause of this sudden pulmonary œdema appears to be unknown. Dieulafoy discusses it with characteristic frankness and says: "I do not know." He stoutly denies that aortitis is a necessary accompaniment, as has been affirmed by some authors. The absence of definite aortitis will have been noticed in the history of my case. Hare, in Osler and McCrae's "Modern Medicine," quotes the theory of Welch; he ascribes it to increased capillary tension arising from the forcing on by the right heart of more blood than the left is capable of dealing with. Hare thinks a toxic degeneration of the capillary epithelium is also present, but the explanation is unsatisfying. In *The Medical Journal of Australia* of August 23, 1919 (page 157), the investigations of Winternitz and Lambert are quoted and doubt is expressed as to whether the mechanical effect of the transudation of fluid into the lungs accounts for the fatal ending in these cases. The authors consider that "œdema of the lungs is merely an indication of some underlying disorder and is rarely, if ever, responsible for the death of a patient." The obvious question: "What, then, is the underlying disorder?" they leave unanswered. In my case both the clinical appearances of the approaching death and also the *post mortem* findings definitely pointed to a mechanical cause.

Superacute pulmonary œdema has to be distinguished from uræmic dyspnœa (uræmic asthma); this is usually marked by Cheyne-Stokes' breathing, absence of râles and of characteristic sputum. True bronchial asthma gives râles in plenty, but the signs of acute emphysema are added; inspiration is painful and expiration prolonged and whistling; it gives the idea of an active state of spasm, while pulmonary œdema is clearly passive, both pathologically and clinically.

Treatment is as unsatisfactory as the ætiology. Dieulafoy advocates immediate venesection and says it often gives marvellous results. Apparently life has been saved in hopeless cases. The patients, however, appear liable to further attacks; the presence of an "underlying disorder" would lead one to expect that. On reading Dieulafoy's enthusiastic call to bleed, I regretted that I had not carried it out in my moribund patient.

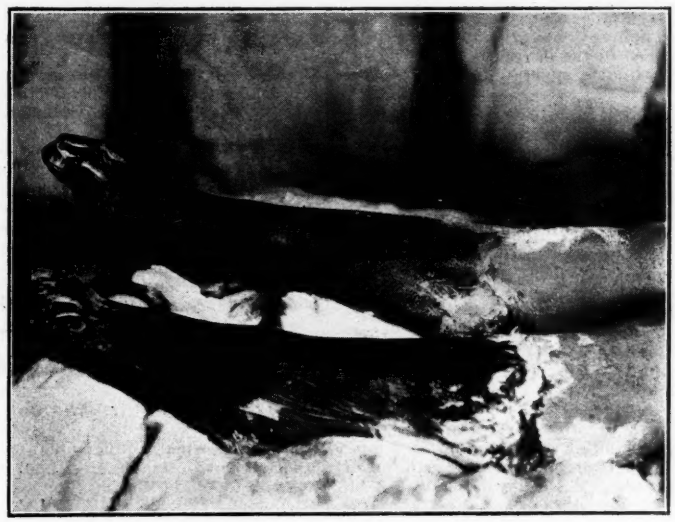
I have to thank Dr. Burnell, the acting Superintendent, for permission to publish the record of this case and Dr. Messent for performing the *post mortem* examination.

A CASE OF SYMMETRICAL DRY GANGRENE.

By **E. J. Addison, L.R.C.P., L.R.C.S. (Ed.), L.F.P.S. (Glasg.),**
Devonport, Tasmania.

The following case is one which appears to me to be of sufficient interest to warrant publication.

The patient is a woman, aged 62 years. She has no *arcus senilis* or other marked signs of senility. The cause and pathology of the gangrene, which affected both lower extremities, remain obscure. Her previous health has been excellent and she has never required the services of a doctor, except at the times of confinement. The gangrene ran practically a non-febrile and aseptic course. There were no definite signs of a toxæmia at any time. Nature's effort at self-amputation was supplemented by surgical intervention. Under general anæsthesia a double amputation was performed. The patient is now in her former excellent health and is getting around in an invalid chair which has been provided by the collective generosity of the townspeople. Some of your readers who have had experience of similar cases, may come forward with a few words of comment and discussion.



Extensive Symmetrical Dry Gangrene, of Obscure Pathology.
Note (*a*) the desiccation and mummification, (*b*) Nature's effort at self-amputation, already well advanced, (*c*) the striking symmetry of the process. There is no appreciable variation in either leg.

Reviews.

DENTAL SURGERY AND PATHOLOGYY.

The fourth edition of "Dental Surgery and Pathology"[1] by Dr. J. F. Colyer, which has just come from the press, is up to the usual high standard of publications by this well-known author. The work contains so much more valuable material than is usually found in the average text-book that it may be regarded as an excellent work of reference for both medical and dental practitioners. On scanning the pages, the reader cannot fail to observe the results of keen observation and original research upon the part of the author. It is evident, too, that Dr. Colyer has performed a great number of surgical operations upon the jaws during the period of the war, for the chapter upon "Fractures of the Jaws" contains the most up-to-date information upon this important subject, both in relation to gun-shot injuries and those sustained in civil life. This particular chapter is profusely illustrated and contains many drawings of splints and other mechanical appliances for the immobilization of the fragments and the gradual reduction of displacements.

The chapters upon normal and pathological dentition, defective formation of the teeth, diseases of the periodontal membrane, the treatment of caries, extractions of the teeth, diseases of the pulp, etc., apply, of course, especially to the dentist, and contain an exhaustive description of what he should know in connexion with those important branches of his profession; but there are many other chapters upon such subjects as the bacteriology of the mouth, the saliva, odontomes, neuralgia, diseases arising from reflex irritation of the teeth (including affections of the nervous system, the ear and the eye), suppuration of the maxillary sinus, tumours of the jaw, etc., which cannot fail to interest and help the practitioner in medicine and still more, perhaps, the general surgeon.

Dr. Colyer enjoys the advantage of having studied medicine, dentistry and surgery and, therefore, he is eminently

[1] Dental Surgery and Pathology, by J. F. Colyer, F.R.C.S., L.R.C.P., L.D.S., Fourth Edition; 1919. London: Longmans, Green & Co.; Demy 8vo., pp. 899, illustrated by 920 figures. Price, 32s. net.

qualified to express reliable views upon the many phases of practice in the healing art, with which he deals. One of the most important contributions to the book is that entitled "Diseases Arising from Sepsis in Connexion with the Teeth"; with the qualifications he possesses, no writer should be able to handle the subject with greater knowledge and confidence than the author. Insofar, at least, as dental magazines are concerned, no subject has, of recent years, received so much attention as that of systemic disorders arising from septic foci in the mouth. Ever since Dr. Hunter made his historical attack upon the crown and bridgework inserted in the mouths of patients by dentists, the question of infections about the roots of teeth and their probable consequent sequelæ in the way of constitutional disturbances, has given rise to a lengthy controversy, which cannot fail to be productive of a vast amount of good. Dr. Colyer says: "The mouth, in an unhealthy state, is one of the most prolific sources of bacterial toxins and, consequently, of disease." Later on he discusses fully the conditions attributable to septic processes in the mouth, especially affections of the mouth and associated parts, affections of the respiratory tract and of the gastro-intestinal tract and the general conditions arising directly or indirectly from bacterial intoxication or bacterial infection. All these are matters of vital importance in the light of our present-day knowledge and, at least, a general acquaintance with them is as essential to the medical practitioner as to the dentist.

Dr. Colyer's book is a valuable addition to both medical and dental literature.

CHILD STUDY.

"Mother Lore,"[1] from the pen of Mrs. Francis Anderson, is a series of essays on child-life, written attractively with evident sympathy and the earnest intention of asking parents and those in charge of children to alter their outlook so as to see from the child's point of view. The little book is not intended to be a scientific publication, so need not be reviewed as such. However, matters of scientific interest are touched on, notably in the chapter on "The Instincts," where the influence of early impressions and their effect on the nervous system of the adult are discussed at some length. To quote an amusing example: "Why do you hurry so much just as you are getting into bed," said a nurse to an old woman in a darkened ward of a country hospital. "You jump in as if you were frightened." "'Deed, and so I am," said the old woman. "Wasn't there always a man under the bed waiting to catch me by the leg when I was a bit of a girl, and as soon as the light is dim and I get near the bed, believe me or not, he's there still." The study of cases of shell shock has brought forward illuminating new aspects of this side of child psychology.

Common sense marks every page of the book. "On no account should anger be met by anger," says the author, ". . . . the passion of his mother or father would remain in the child's mind as an example to justify his conduct."

Mrs. Anderson complains that parents do not try to educate themselves for their responsibilities. ". . . . those of us who love a garden, use our best endeavour to give our young trees the conditions they need, and often consult books and gardeners so that we may learn to do our best for our plants. To many parents the child hardly seems to need the care which they bestow so willingly on a plant."

The little book under review would give much useful information and food for thought to those who make a study of child-life.

It was announced at the meeting of the Board of Management of the Melbourne Hospital on September 23, 1919, that Dr. Konrad Hiller and Dr. S. V. Sewell had undertaken military duty at the McLeod Military Hospital for a period of six months. Dr. J. A Smeal and Dr. W. J. Denehy were consequently appointed temporarily honorary physicians to out-patients. At the same meeting the resignation of Dr. W. H. L. Moore from the position of Registrar was accepted with regret.

[1] Mother Lore, by Maybanke Anderson (Mrs. Francis Anderson); 1919. Sydney: Angus & Robertson, Limited: Crown 8vo., pp. 109. Price, 3s. 6d.

Naval and Military.

HONOURS.

In the *Commonwealth of Australia Gazette*, No. 109, of September 15, 1919, the announcements made in the *London Gazette* of June 3, 1919, relative to the award of Birthday Honours, are reproduced. The following are the entries of the names of medical practitioners:—

Companion of the Most Honourable Order of the Bath.

Colonel George Walter Barber, C.M.G., D.S.O., Australian Army Medical Corps.

Companion of the Most Distinguished Order of Saint Michael and Saint George.

Lieutenant-Colonel (temporary Colonel) Thomas Peel Dunhill, Australian Army Medical Corps.

Companions of the Military Division of the Most Excellent Order of the British Empire.

Colonel Alexander Hammett Marks, D.S.O., Australian Army Medical Corps.

Colonel Arthur Edmund Shepherd, D.S.O., Australian Army Medical Corps.

Distinguished Service Order.

Major (temporary Lieutenant-Colonel) John Robb Muirhead, 5th Field Ambulance, Army Medical Corps.

Mention is also made of the awards granted to Captain George Bell, Major John William Farrar, Lieutenant-Colonel Piero Fiaschi, Major Frederick Donald Herbert Blois Laughton, Lieutenant-Colonel Valentine Osborne Stacy, Lieutenant-Colonel Clive Wentworth Thompson, Lieutenant-Colonel Hugh Bennett Lewers, O.B.E., Major Marcus Vicars Southey and Lieutenant-Colonel Frank Couper Wooster. These awards have already been announced in *The Medical Journal of Australia* of August 16, 1919.

Public Health.

NEW ZEALAND.

The following notifications have been received by the Department of Public Health, Hospitals and Charitable Aid, New Zealand, during the eight weeks ending August 25, 1919:

Diseases.	No. of Cases.
Enteric Fever	88
Scarlatina	270
Diphtheria	622
Pulmonary Tuberculosis	161
Cerebro-Spinal Meningitis	16
Erysipelas	18
Puerperal Septicæmia	16
Septicæmia	2
Morbilli	24
Ophthalmia Neonatorum	2
Hydatids	7
Influenza	429
Pneumonia	167
Encephalitis Lethargica	28

PNEUMONIC INFLUENZA.

In the *Queensland Government Gazette* of September 15 and 25, 1919, the Commissioner of Public Health publishes an order imposing the usual restrictions on persons within the townships of Mossman, Port Douglas, Killarney, Tannymorel and Mount Colliery on account of the prevalence of influenza in these districts.

William Wells Greer, Esq., M.B., Ch.B., 1904, M.D., 1906 (Univ. Edin.), F.R.C.S., 1914, Edin., of Southport, has been elected a member of the Queensland Branch of the British Medical Association.

The Medical Journal of Australia.

SATURDAY, NOVEMBER 4, 1919.

Australian Medicine.

The child is father to the man. The student in medicine possesses the attributes which, if properly awakened and developed, will form the characteristics of the next generation of the medical profession. In the child, the desirable qualities must be nurtured and educated and the evil traits suppressed, if the man is to become a useful citizen. A scientific and progressive medical profession cannot be built up without the exercise of a wise control and of properly conducted teaching of the student. It is unnecessary to waste words over the subject of the inherent abilities of the Australian medical student. Nor need we become discursive on the subject of his natural taste for a scientific life. It is, however, apparent in each of the Australian schools of medicine that the commercial instincts of the student are sufficiently strong to guide him to the road that leads to financial success, irrespective of claims that his science may make on him. With the true disciples of science money making is a secondary consideration. The scientist should be spared financial worries, for straitened circumstances must influence his work, by rendering it impossible for him to concentrate all his energies to the problems he has in hand. The money seeking attribute will recede in the student as the love for science is awakened. We may therefore leave the Australian medical student for the present, relying on his ability, resources and unawakened bent for a scientific career on which to create a highly placed profession.

The other half of the problem is not so full of promise. The teaching in our medical schools is largely a hurried preparation for examinations. The teachers are in many instances men who are content to inculeate in the minds of their students knowledge that has been garnered in other parts of the world. They neither practice nor teach original thought. Research work enters but little into the daily lives of the workers in our medical schools. Many of the teachers have been invited to come to Australia to occupy the chief positions in our schools. When the universities were young, this may have been necessary, but our professors and teachers have had the opportunity through several generations of students to train men to fill the several positions as they fall vacant. The lack of training of original research and of scientific methods has led to a more or less complete failure to produce anything approaching an all-Australian medical school. The fault is not to be sought in the students. In a few the scientific spirit is so strong that, despite the defects in the teaching, they have established themselves on the roll of scientists.

We are apt to console ourselves, when these defects are brought to our notice, with the claim that Australian surgery can hold its own throughout the world. Manipulative surgery is certainly very well taught in our hospitals, which may rank in this respect as technical schools. But there is a vast difference between the art of operating and the science of medicine. The surgeon needs physiological and chemical knowledge as a basis of his professional work, and very few of our students receive a sufficiently sound education in the more advanced branches of these sciences, to enable them to apply them intelligently in their daily work. Students are not instructed in the technique of the laboratory. They are not required to gain dexterity and intimacy with instruments of precision and they are not made familiar with the proper methods of employing laboratory apparatus. How many of our students have been taught how to calculate the extent of experimental error in, let us say, a simple titration? The advantages of conducting experimental research are often under-estimated. There is no better way of training the powers of observation. Accuracy becomes second nature to the student whose mind is directed toward a perpetual search for defects in his own work. The endeavour to discover a single new fact, no matter how insignificant, is the best means of sharpening the wits and revealing to the student how small an amount of actual knowledge has been accumulated up to the present time. The true scientist is ever dissatisfied with the information that searchers for truth have been able to wrest from

veiled nature; he acquires an insatiable thirst for more knowledge. When our students are taught to endeavour to look deeply into the closed book of nature, to strive to interpret a page or a word in that book, to watch the progress made elsewhere and to test every thought or idea critically and exhaustively before a second step is taken, we shall be able to lay claim to being a scientific, up-to-date profession. The scientific spirit must be sought; it must be nursed and coaxed; it must be encouraged and prized. When this is achieved, we shall need less protection from the charlatan and shall not need to meet the politician with argument when he brings forward his proposals for gaining control over the profession. The panacea for the medical profession is an all-Australian scientific training for our students.

THE MIND FACTOR IN DISEASE.

All good teachers are enthusiasts, prepared to go the length of exaggeration to emphasize the fundamental points of their doctrines. When the subject to be taught is an exact science, definite statements are given with marked emphasis, in order that they may be readily appreciated and retained. When the subject is obscure, the emphasis becomes dogma and the teacher frequently finds it necessary to give his imagination rein. To teach in an uncertain mood is to teach badly. No lasting impressions are left on the mind of the listener and no enthusiasm is awakened. No one has yet been able to supply a satisfactory definition of mind. The nature of thought is not understood, and while the facts of consciousness and sub-consciousness cannot be denied, we are quite in the dark concerning the chemical and physical changes in the brain cells necessary for the reception of an idea or for the transference of an impression to the realm of consciousness. The term psychology is given to study of mental processes, but it must be admitted that psychology is not a science, but merely an aggregation of arguments. Text-book psychology is largely composed of obvious platitudes. For the rest, it is an attempt to apply logical deduction to uncertain premises. Notwithstanding this highly unsatisfactory condition of our knowledge of the process of thought and of the part played in physical phenomena by the higher centres of the brain, it is quite essential to form a working conception of these mental processes. All man's actions are originated, modified, perpetuated or inhibited by conscious or sub-liminal thought. It is unnecessary to regard mental or nerve processes as something outside the sphere of our comprehension, in order to set up a working hypothesis. Physicists would have remained in the rut of stagnation had they accepted this position concerning light, heat, gravity and electricity. But the fact should not be forgotten that the premises on which the doctrine is propounded for a working psychology may be false.

Psychologists have endeavoured to discover the normal sequence of events within a human individual in a given environment. It is known that the sound of a single spoken word produces primarily the same response in every person said to be normal. The secondary responses must depend on the previous experience of the individual. Experience may impel a normal individual, consciously or unconsciously, to modify the response to the stimulus in order that the experienced sequence of events may not be repeated. When some physical or chemical change in the body alters the reactivity of the brain cells involved in the usual response to a given stimulus, the result is necessarily complicated, not only by experience, but also by the diversion or inhibition or acceleration induced by the abnormality. Further difficulty is introduced when there is a developmental defect, a function missing, owing to an incomplete anatomical and physico-chemical mechanism. Much more knowledge is required before the mental process can be understood. Neither psycho-pathology nor psycho-analysis can possibly reveal more than a few of the incidents in the whole of the mental machinery.

In the present issue we publish a lecture recently delivered during the post-graduate course at the Melbourne Hospital by Dr. Springthorpe. The speaker dealt with great emphasis with the clinical results obtained in war neuroses and mental or nervous symptoms of organic lesions, when treated by persuasion or suggestion. He pointed out with ample justification that this form of therapy had become much more generally recognized since the beginning of the war. In our issue of June 7, 1919, we published a fascinating article by Dr. W. R. Reynell on the methods employed at Seale Hayne Hospital, at Newton Abbot,

in Devonshire. Both authors record the sudden disappearance of symptoms as the result of properly applied suggestion, even after competent surgeons and physicians had applied physical remedies in vain. It is an old story, which the charlatan has learned better than the medical practitioner. Charcot, Liébault, Wetterstrand, Bleuler, Forel, Lloyd Tuckey and a handful of others have long since taught that if the medical profession persists in ignoring the possibility of the removal of objective symptoms by hypnosis or suggestion, the charlatan, the "spiritual healer," the "Christian scientist," the priests at Lourdes and others who employ suggestion, will gain the confidence of the public at the expense of the regular practitioners of medicine. The application of suggestion or persuasion requires skill, patience and intimate knowledge of human nature. Psychoanalysis, whether Freudian or of a wider kind, is merely a method of arriving at an understanding of the patient's mental development and activity, by means of which suggestion can be more confidently applied. It is quite common for the lightening and girdle pains of locomotor ataxia to disappear as the result of the laying on of hands by a spiritual healer. In such a case the suggestion acts through the susceptible religious make-up of the patient. In more difficult cases some form of psycho-analysis becomes essential and successful suggestion can scarcely be applied without it. Dr. Springthorpe's appeal for a wide application of this form of therapeutics is well-timed and wise. It must, however, be remembered that the faith-healer cannot cure the *tabes dorsalis*, even if he is able to banish the pain. The hypnotist or suggestor will never cure an organic form of insanity, although judicious handling may restore the balance of a relatively normal person whose mental equilibrium has been disturbed by some severe upset. The medical profession need not relinquish its materialistic attitude because suggestion and persuasion are powerful adjuncts in the treatment of disease. If our ignorance of the basis of mental processes be admitted, the reality of mental healing need not induce thinking men to relinquish views based on facts that can be analysed with exactness. Notwithstanding Dr. Springthorpe's report of cures having been effected by suggestion after orthopædic measures have failed to relieve, the materialistic orthopædic surgeon is still justified in transplanting tendons, suturing nerves and educating muscles. Suggestion can do much, but it cannot replace these or analogous methods of treatment.

SPRUE.

From the text-book descriptions the student is led to regard sprue or psilosis as a characteristic disease, which can be recognized without difficulty. In practice, however, the diagnosis is often by no means easy and many cases remain undiagnosed for considerable periods and possibly for all time. Manson and Cantlie have provided us with an excellent description of the salient signs and symptoms of the disease. When these signs and symptoms occur typically, the nature of the disease is at once apparent, but, as occurs in the majority of pathological processes, atypical cases or cases in which some of the prominent signs are absent, are often encountered. Sprue is not infrequent in Queensland and may be considerably more common than the majority of practitioners realize. As the pathology of the disease is obscure, an exact definition cannot be given and consequently there may be some difficulty in determining all the varieties of the process. At the annual meeting of the American Medical Association in June, 1919, Dr. Edward J. Wood instituted a discussion on this subject, with the object of improving the diagnosis in the United States.[1] Dr. Wood has realized for some years that the doubt concerning the existence of true sprue in the southern States of America constituted a danger to the health of the community. He has therefore paid great attention to the symptoms and signs of sprue in his own patients. He prefers a simpler method of description of symptoms than Manson has given. In the first place, the tongue attracts attention. In sprue it is inflamed and pink, with congested fungiform papillæ, eroded patches and superficial cracks on the dorsum and edges. Crombie's molar ulceration is not diagnostic, since it is seen even more frequently in pellagra. Dr. Wood has no difficulty in distinguishing the tongue of a patient with sprue from the organ of a person suffering from pellagra. In the former there is a cobble-stone appearance and it is less red than in pellagra. Usually the diarrhœa of sprue is distinctive. The motions occur between midnight and ten o'clock in the morning; the diarrhœa then ceases until the following midnight. The stools are voluminous, acid and contain large quantities of intermixed gas. They are light in colour and contain hydro-bilirubin. Their fat content is very high. It is generally accepted that the fatty nature of the stools is the most characteristic sign of the disease. In this connexion it is suggested that there may be some relationship between pancreatic insufficiency and sprue. Dr. Wood refers to the estimation of the fat loss, which may be as high as 45%, and the nitrogen loss, which may be as high at 15%. He has found that there is evidence of pancreatic insufficiency, as revealed by the thymus nucleus test and by Sahli's glutoid salol test. Other speakers

[1] *Journal of the American Medical Association*, July 19, 1919.

noted the similarity between sprue and pancreatitis. Unfortunately, but little investigation has been made on the changes in pancreatic digestion in sprue. The third group of pathological changes of sprue is met with in the blood. There is a remarkable resemblance to pernicious anæmia in many cases. The colour index is said to be high in the majority of cases. The size of the red blood corpuscles varies widely. Poikilocytosis is present, but there the similarity ends. Stippling of cells is rare and megaloblasts and normoblasts are not found. The confusion between the two diseases is occasioned by the symptoms, including the type of anæmia, and the secondary toxic effects. It is pointed out that the toxin of pernicious anæmia attacks the spinal cord and the blood-forming organs, while that of sprue attacks the gastro-intestinal tract and the blood-forming organs. Apparently in the differential diagnosis the need to exclude dysentery has not led Dr. Wood into any difficulty. It is stated that the mental symptoms in sprue are usually less marked than in pellagra. A careful study of sprue in Queensland and an endeavour to ascertain the ætiology and pathology of the affection might be undertaken by the members of the Australian Institute of Tropical Medicine at Townsville.

THE USE OF CABBAGE IN PREVENTING SCURVY.

Fresh vegetables, and especially cabbages, have long enjoyed a high reputation for their power of warding off scurvy. The anti-scorbutic properties are more or less lost when these vegetables are cooked to render them palatable and digestible. These medicinal qualities are, also, much diminished when the vegetables are dried. Lind tells in 1757 of the protest of an ingenious physician against the issue of dried spinach by the Lords of the Admiralty. This physician states that no moisture could restore the natural juices of the plants which had been altered by some fermentation during their evaporation. Lind recalls the experience in Hungary when large quantities of dried vegetables sent to the army fighting against the infidel in 1720, failed to prevent an outbreak of scurvy, which carried off thousands among those warring with the Turks. These dried vegetables had been sent on the advice of the College of Physicians in Vienna. Despite this knowledge many outbreaks of scurvy were noted during the American Civil War between 1861 and 1865, as a consequence of using dried vegetables when other anti-scorbutic remedies were absent from the diet. In recent times attempts have been made to introduce dried vegetables to alleviate some of the distress in Europe occasioned by the Great War.

Guinea-pigs suffer from a disease resembling scurvy when fed upon an unsatisfactory ration. They exhibit the symptoms of soreness in the joints, lameness, with or without locomotor inactivity, and the adoption of characteristic postures. Severely affected animals show swollen knees and possibly fractures of the tibia near the epiphysial junction. At autopsy the teeth are often found to be loose, while the jaws readily fracture at the slightest pressure. Hæmorrhages abound in the subcutaneous tissues, muscles, viscera and periosteum. Ridges and swellings develope at the junctions between the ribs and their cartilages. The bones are fragile and may have been broken during the illness. Guinea-pigs have been used by Misses E. M. Delf and R. F. Shelton at the Lister Institute of Preventive Medicine[1] for the investigation of the effects of heat and of desiccation on the anti-scorbutic and on the growth-promoting properties of cabbage. They have employed animals weighing about 330 grammes and have continued their experiments for 90 days. In this period healthy animals have doubled their weight. The guinea-pigs have been fed upon water and upon a mixture of rolled oats and bran, which has been eaten greedily. When the ration of cabbage has weighed less than 5 grm., 60 c.cm. of milk previously heated in an autoclave to 120° C. have been administered. Animals fed on this diet alone exhibit signs of scurvy in about three weeks. The animals have been housed in a warm room during the investigation and have been given regular exercise each day. Studies have been made on the influence of heat on cabbage by drawing graphs of the weight of the animals as well as by noting the onset of the signs of scurvy.

The anti-scorbutic factor in cabbages is greatly affected by temperatures below the boiling point of water. Roughly, 70% of the anti-scorbutic power is lost during one hour's cooking at 60° C. and over 90% during an hour's heating at 90° C.. The temperature co-efficient for the destruction of the anti-scorbutic powers appears to be low, as the rate of destruction is only increased threefold for an increase in temperature of 40° C.. It would appear that vegetables should be cooked for a short period at a high temperature rather than for a long time at a lower temperature, when it is desired to preserve their anti-scorbutic qualities. Some evidence has been obtained that steaming injures these qualities less than boiling in water. Water alone should be used during the process of cooking. The addition of alkalies and acids increases the amount of loss of anti-scorbutic properties.

A number of observations have been made on the qualities of cabbage heated under pressure to temperatures ranging from 120° C. to 130° C. for several hours. It would appear that the anti-scorbutic power of 15 grm. of cabbage heated at 130° C. for one hour is identical with that of 1 grm. of raw cabbage. Definite symptoms of scurvy are manifested when the ration of cabbage, weighing 15 grm., has been heated for more than two hours at 130° C.. It is therefore evident that the destruction of these qualities at high temperatures does not occur rapidly. The fat-soluble vitamine-promoting growth is destroyed at the same speed.

The experiments made with dried cabbage have been carried out in two series. The first series has been performed with material dried in the laboratory at 37° C., while the second series has been conducted with commercial dried cabbage dried at 60° C. with a fan. In the preliminary series a portion of the cabbage has been heated in boiling water for five minutes prior to drying it. The results of the experiments on the rabbits have shown that there has

[1] *Biochemical Journal*, Vol. XII., pp. 416 and 448, December, 1918.

been a loss of anti-scorbutic properties when the dried cabbage is stored for two or three weeks before use. If the dried cabbage is stored for a long period a further loss in the anti-scorbutic properties is brought about. After storage for three months the dried cabbage has lost practically all its protective qualities. Cabbage which has been heated in boiling water for a few minutes to destroy enzymes, contains a greater residual quantity of the anti-scorbutic property than cabbage which has only been dried. The fat-soluble growth-promoting vitamine disappears *pari passu* with the anti-scorbutic property. When the cost of labour and of fuel is considered in connexion with the desiccation of green vegetables, it would appear to be unsound economically to dry these vegetables. The dried products are of low nutritive value and contain practically no antidote to scurvy.

PNEUMOCONIOSIS AND PULMONARY TUBERCULOSIS.

For many years it has been held that the inhalation of dust, especially in the course of certain trades, leads to the development of pulmonary tuberculosis. Before the true nature of tubercular infections was discovered, much confusion resulted from the indiscriminate use of the term phthisis. Later, when it was ascertained that all phthisis was tubercular, an anomaly arose by the persistence with which the term fibroid phthisis was employed, notwithstanding the doubt whether the process was in fact tubercular. The continued study of chronic inflammatory affections of the lungs revealed that the pneumoconioses were not necessarily associated with pulmonary tuberculosis. Still later it was demonstrated that dust was dangerous to human beings in proportion to its silica content. A recent contribution to this subject, based on statistical considerations, has again justified the doubt whether dust stood in any ætiological relationship to tuberculosis. The statistics seemed to prove that the frequency of tubercular infections in a community largely occupied in mining and other dusty trades was due to the peculiar type of bacillus, which showed a definite preference for persons of a particular age period. Much information has been collected on this important subject, especially in Great Britain and in South Africa. In the course of an admirable review of the knowledge collected in recent years in various parts of the world, Professor H. R. M. Landis, of the University of Pennsylvania, has added his own observations to those of others and has arrived at a position that seems to be justified by the available data.[1] It is scarcely questioned any longer that dusts containing silica in large proportion give rise to serious chronic fibroid changes in the lungs. The author points out that it is significant that the changes induced by the inhalation of this form of dust are identical to those produced in the arrest of a tubercular lesion of the lungs. He adduces strong evidence to show that there is a raised resistance to infection on the part of the fibroid lung. Moreover, when a tubercular process involves a lung affected with silicosis, the process tends to become walled off by fibrous tissue rather more rapidly than does a tubercular involvement in a normal lung. In the next place, Professor Landis lays some stress on the fact that there is often extreme difficulty in differentiating between the fibrotic and the tubercular process, when judged clinically. In a large number of instances, the diagnosis is made from physical signs, and consequently any statistics compiled from information of this kind are liable to mislead. Unless the tubercle bacillus is detected, the diagnosis of tuberculosis is hazardous. He refers to instances within his own ken of potters who have suffered from tubercular infections grafted on their pneumoconiosis and have had their disease arrested. These men were able to return to their occupation and yet remained well for a number of years.

Having arrived at these conclusions, he is met with the fact that pulmonary tuberculosis attacks those exposed to inorganic dusts more frequently than it attacks the general community. The explanation offered is that the dust acts as a convenient carrier of the tubercle bacillus. If the dust acted in this way and not by producing an increased susceptibility to a tubercular infection, it would follow that the non-silicious dusts constitute as great a danger as dusts containing much silica. The very finely divided particles would then be of greater importance than the coarser grained dusts, since only particles of between 1 μ and 8 μ reach the alveoli. Another important consideration in this connexion is that of the hygienic condition of the homes of the workers. It has been shown that house infection is responsible for a large proportion of the tuberculosis among the community. All inquiries have elicited the fact that it is more common to find a relative infected with pulmonary tuberculosis living in the same house as the patient than clear evidence of infection at the place of work. The hygienic condition of the homes of zinc miners was found by Lanza to be extremely bad. In South Africa the tubercular infections among miners has largely been traced to women. Again, in the mining district of Bendigo, in Victoria, the incidence of tuberculosis is excessive among the women, as well as among the men. The women do not come into contact with the mining operation.

From these considerations it would appear that the fibrotic lung is less liable to be involved in a serious tubercular process than the normal lung, although any dust may convey the germ of consumption into the respiratory passages.

[1] *The Journal of Industrial Hygiene*, July, 1919.

It has been announced that a permanent isolation hospital, with about 100 beds, will be equipped in the old Exhibition Building in Frome Road, Adelaide. This hospital will be under the same management as the Adelaide Hospital and it is stated that the staff of the latter institution will be given charge of the new isolation wards.

Mr George Vickery Brooks, the Principal of the Elizabeth Street Practising School, Hobart, has been appointed Director of Education in Tasmania. It will be remembered that Mr. McCoy relinquished this position to become Director of Education in South Australia.

At a meeting of the Senate of the University of Sydney, held on September 1, 1918, the degree of Master of Surgery was conferred *in absentia* upon Ebenezer Alexander Sambrook, M.D.

Abstracts from Current Medical Literature.

OPHTHALMOLOGY.

(116) The Pupil in Glaucoma.

From a study of the pupillary reactions in glaucoma John Dunn gathers much important evidence on the nervous mechanism concerned in the production of the primary pupillary response to light (*Archives of Ophthalmology*, March, 1919). He contrasts the pupil in acute and chronic glaucoma. In the former the dilated pupil responds neither to light nor consensually nor in accommodation. It is absolutely immobile. This condition is the result of pressure against the root of the iris and mechanical stretching of the *sphincter pupillæ*. All this may alter on recovery. In a case of chronic glaucoma with a blind eye and high tension, the pupil was equal to its fellow, did not respond to light directly, but responded consensually and in accommodation. It did not, however, provoke consensual reaction in the good eye. It is the latter condition that the author is considering. In the case of another patient, the glaucomatous eye had perception of hand shadow. The pupillary condition was similar to that of the patient mentioned above, with the exception that light thrown into the blind eye did provoke consensual reaction in the other. This, the author advances, must be regarded as evidence of his views already expressed regarding the Argyll-Robertson pupil, *viz.*, that activities aroused within the retinal pigment layer following impact of light on the retina, must, without travelling toward the centre along the optic nerve, be directly transmitted to the ciliary region and ciliary ganglion, from which motor impulses are sent out resulting in contraction of the pupil. Thus it appears that in simple chronic glaucoma there comes a time when the intra-ocular pressure is so great that it obliterates the normal activities of the retinal pigment cells, before all function in the overlying retinal cells is destroyed. In the case of the second patient when light was thrown upon the retina of the left glaucomatous eye (the sound eye being covered) there was no primary pupillary response. When light was thrown on the retina of the left glaucomatous eye and the sound eye was open, there was consensual pupillary reflex in the sound eye, and light impulses passed along the optic nerve to the right third nuclei with sufficient force to cross to the left third nerve nuclei and awaken a response in the left pupil. From these facts it must follow that light passing centralwards along the optic nerve is incapable of producing the primary pupillary reflex. A further case demonstrates this fact, that though the primary pupillary reflex may be absent the pupil need not be widely dilated. In this patient the other eye had been removed, and the partial dilatation was due to the fact that the retinal pigment was not entirely destroyed and continued to exercise its tonic influence over the ciliary ganglion. In the case of a fourth patient the nerve heads were snow-white and the vessels were almost entirely obliterated. She could count slowly fingers a foot away. Her pupils were dilated *ad maximum*, were totally irresponsive to light, but contracted when the patient looked at the tip of her nose. In her case the retinal pigment layer was destroyed from lack of circulation in the retina, and hence exercised no tonic influence over the ciliary ganglion.

(117) Corneal Anæsthesia in Hemiplegia.

In coma of moderate degree E. D. Friedman has found that unilateral corneal anæsthesia evidenced by absence of the corneal reflex (winking), is a valuable diagnostic point differentiating hemiplegia from other forms of coma (*Journ. Americ. Med. Assoc.*, June 21, 1919). The lesion must be sensory, for if it were motor, as stated by Milian, the consensual reflex would still be present on the other side. The corneal anæsthesia may be due to the presence of sensory fibres in the motor path ways. Diagnosis between hemiplegia and uræmia is important, as it affects the treatment. The reflex is best elicited by carefully passing a small blunt object along the conjunctiva to the corneal margin.

(118) Vernal Catarrh.

J. De J. Gonzalez reports a case of vernal catarrh which proves his contention that this condition is frequently followed by keratoconus (*Americ. Journ. Ophthal.*, April, 1919). He saw the girl first in 1913 suffering from a bulbar form of exuberant pericorneal conjunctivitis. He particularly noted that her refraction was emmetropic. In 1916 she returned with bilateral keratoconus. He states that X-rays will cure this disease. This is what one would expect from the histology of the condition—an abundant leucocytic infiltration—and from the special action of X-rays on new formations of this nature. A protective screen and localizing diaphragm are used to limit the action of the X-rays to the desired part. The exposure used is from five to eight minutes and this may be repeated after three or four weeks if further action is required. This practice is better than repeated small doses at short intervals. He reports several cases with excellent results, some with very large recurrent vegetations, which involved the cornea, but ultimately yielded to X-rays.

(119) Non-Operative Treatment of Senile Cataract.

A. S. and L. D. Green give Colonel Henry Smith the credit of putting non-operative treatment of cataract on a more definite basis (*Americ. Journ. Ophthalm.*, June, 1919). The type of cataract that best responds is the simple uncomplicated senile, with radial or diffuse opacity. Dense nuclear or subcapsular cataracts will not be benefited. Macular changes should be excluded. The procedure is to inject beneath the anæsthetized cornea 1.2 c.cm. of 1-4000 cyanide of mercury solution. This is followed by hot compresses and morphine to relieve the pains. Some writers follow up this treatment with a daily eye bath of 1% potassium iodide solution, with, on alternate nights, a drop of dionine solution, starting from 2% to 8%. The vision improved in 42 patients out of 72; the changes were arrested in 18 and the cataract progressed in 12. This treatment should be adopted when the vision is reduced to 50%.

(120) Congenital Ptosis and Mendelism.

H. H. Briggs has worked out a geneology for six generations among a mountain family of North Carolina exhibiting a regular transmission of congenital ptosis (*Americ. Journ. Ophthalm.*, June, 1919). The six cases reported occur in the fourth, fifth and sixth generations. Twenty-three families are represented, in 17 of which the father and in 6 the mother transmitted the malformation. In no case did the affected parents fail to transmit ptosis to one or more of their offsprings. Of the 128 members of the family 64 were affected and 64 were normal; of the total 128 persons 74 were males, 53 females (one unknown). Of the 64 affected 33 were males and 30 females; while of the 64 normal 41 were males and 23 females. The author's cases conform to the Mendelian law of dominance, because (*a*) the transmission is through affected persons only. (*b*) In every case the dominants (ptosis) had one parent affected and the other normal. (*c*) The relation of 64 dominants (ptosis) to 64 recessives (normals) conform to rule. (*d*) That it is not a recessive character is shown by the fact that in no case was an affected child born from normal parents.

(121) A New Test Type for Malingerers.

Alan W. Sichel found that 5% of soldiers whose visual acuity was examined refused to read as small a type or as low a line as they certainly could (*British Journ. Ophthalm.*, March, 1919). This deception was in many cases detected by the employment of a different series of letters. Instead of beginning with the big letter at the top ($^6/_{60}$), followed by six rows of letters gradually decreasing to $^6/_6$, he used rows of different sized letters. Thus, the top row consisted of letters that could be read at 9, 6, 12, 9 and 18 metres respectively; the second row of letters for 18, 12, 6, 9, 24 metres; the third row for 12, 18, 36 and 9 metres, and the bottom row for 24, 6, 12, 9 and 18 metres. There were no letters corresponding to 60 metres. The malingerer, confused by the new letters, often read smaller letters than formerly.

LARYNGOLOGY AND OTOLOGY.

(122) Hæmorrhage after Tonsillectomy.

In the April, 1919, number of the *Journal of Laryng., Rhin. and Otology*, Irwin Moore states that enucleation with the guillotine, with blunt-bladed

instruments, is regarded by the majority of operators as the most satisfactory way of removing the tonsils and as less likely to be followed by hæmorrhage than enucleation by dissection. The principal sources of hæmorrhage he gives as: (1) tonsillar artery or its branches, (2) ascending pharyngeal, (3) branch from descending palatine, (4) branch of ascending palatine, (5) branch of *dorsalis linguæ* artery, (6) capillary oozing from small vessels, (7) an enlarged venous plexus, (8) internal carotid. The course of the latter vessel may be abnormal. The chief predisposing causes of hæmorrhage are acute inflammation of the tonsil, anæmia and leukæmia, cardiac and renal diseases, the menstrual period and pregnancy, hæmophilia, purpura and malignant disease. The main exciting causes are traumatism from unskilled operations, exertion too soon after operation, coughing, vomiting and the use of local anæsthesia. The danger of hæmorrhage is greater in adults than in children. A purgative should be given two days previously, smoking and alcohol interdicted for three or four days, light diet enjoined for twenty-four hours and rest ordered for twelve hours preceding operation. Deep chloroform anæsthesia increases the risk of secondary or reactionary hæmorrhage. Whenever a quite moderate loss of blood is undesirable, calcium lactate should be given for three days before operation. Two 1.0 gramme doses obtain the greatest acceleration of coagulation; the effect may appear in three hours and last till the third day. Adrenalin is not recommended, as it may cause secondary hæmorrhage. Pituitrin diminishes the loss of blood, reduces the coagulation time by one-third or one-half, increases the strength of the heart beat and slows its action. Fresh blood serum, subcutaneously injected, is a good prophylactic; horse serum and coagulose are recommended. The bleeding after removal of one tonsil should be controlled, by sponge pressure or swabs, before the other is touched. Ice or iced water will often control moderate bleeding and the patient should be kept on the table until all bleeding points have stopped. Reactionary hæmorrhage after operations generally comes on three or six hours later, the most dangerous type being a slow, persistent oozing from the whole surface of the wound. A large clot may form in the tonsil bed and hæmorrhage often ceases after its removal. A bleeding artery should be gripped by a long-handled artery forceps and twisted or tied, or the forceps left in position. A clamp or hæmostat is not generally recommended, as it may cause discomfort or sloughing. The hypodermic injection of morphine and atropine is useful in controlling restlessness and reduces the blood pressure. Ice is less useful in secondary than in primary hæmorrhage. Pituitrin will control urgent bleeding. Traumatic hæmorrhage in hæmophilia is said to be arrested by horse serum. Saline gelatine solution, subcutaneously injected into the flanks or gluteal region, reduces the coagulation time. Hæmostatics should be regarded only as an adjunct to compression. Ligature of the common carotid artery is not often successful. A temporary suturing of the faucial pillars, under an anæsthetic, should be done early in all cases in which sponge pressure or ligature has failed to control the bleeding. It is easy to perform if a semicircular needle attached to a flat handle and threaded with a catgut suture, is used. The patient should be kept in the lateral position after operation, with a cork or bobbin between his teeth. Expectoration should be prevented. Pulse failure may be restored by a rectal saline, but caution is necessary lest the increased blood pressure cause a renewal of the bleeding. The patient should be kept in bed for twenty-four hours after operation, cold or ice drinks given and only soft foods allowed. The mouth should be kept clean and the wound aseptic.

(123) Aural Bacteræmia.

Bacteræmia is defined by Richard Lake (*Journ. of Laryng., Rhin., Otology*, April, 1919) as a morbid condition of the blood, in which bacteria are present in the blood stream. It is to be distinguished from pyæmia, in which there is a casual entry of bacteria and their products into the blood. Static abscesses are rare in bacteræmia. Lake recognizes pre- and post-operative cases and these he divides into two classes, one in which bacteria enter, but do not live long in the blood, owing to its inhibitory action, and the other in which the inhibitory action is in abeyance and the bacteria remain, during the course of the disease, in the circulation. A rise of temperature denotes an increase in the number of bacteria in the blood; a fall indicates a diminution. When bacteria are constantly present, the temperature does not fall very low and these cases are apt to terminate fatally. Lake thinks that streptococci, rather than staphylococci, are the causal organisms. When the ordinary symptoms of lateral sinus infection, as shown by rigors and pyæmic abscesses, are absent, involvement of the lateral sinus is comparatively rare. The causation of the condition is to be sought for in the anatomical peculiarities of the mastoid. Bacteræmia is rather rare, apart from aural cases, in bone diseases. Apparently pus is held up in the small cellular spaces of a mastoid, which is affected by an acute or chronic osteitis, with its engorged mucosa and its numerous, widely-opened, uncontractile vessels. It is through these that the bacteria find their way into the blood stream. Bacteræmia occurs most frequently as a complication in acute and sub-acute otitis media, especially when the mastoid is principally affected apart from the middle ear. The patients are most often children. There may be no signs or history of aural discharge and no evidence in the drum. Tenderness over the mastoid is found. There is no history of rigors. Cerebration appears stimulated. The eyes are bright, but the complexion is muddy if the bacteræmia has lasted more than a short time. The temperature tends to have a fall and a rise at intervals of 24 to 48 hours. The prognosis, when the condition can be separated from pyæmia, is not bad. Lake advises opening the mastoid when it is thought to be the source of infection, the lateral sinus not being touched unless the first operation fails. All the cancellous bone of the mastoid should be removed, and in bad cases the drum should be incised and the aditus enlarged. In addition, an autogenous vaccine should be given, a stock vaccine being employed during its preparation. Urotropin in full doses he finds highly beneficial in these cases and normal saline solution, preferably injected subcutaneously, should be given daily, at least a litre being used in children and up to four litres in adults.

(124) The Laryngeal Changes Induced by Mustard Gas.

The "gassed larynx" has been studied in a large number of patients at the 73rd General Hospital by Archer Ryland (*Journ. of Laryng., Rhin., Otology*, May, 1919). He states that the typical lesion presents a very constant and regular appearance; this is usually attained about three days after exposure to the gas. A general, but not severe, congestion of the whole of the upper laryngeal orifice is found, but the true cords suffer most. The pharynx and trachea are usually but slightly affected. Both ends of both cords are reddened and inflamed and show vascular engorgement. The mesial longitudinal halves of the middle thirds of the cords, the portion of the *rima glottidis* least protected by neighbouring structures, appear as smooth, slightly raised, yellowish surfaces, which overlap the face edges of the cords and interfere with their approximation and so cause hoarseness or aphonia. These yellow fibrinous sloughs are tough and adherent and the edges may later become notched or serrated. Ryland has never observed hæmorrhage or anything approaching a dangerous degre of laryngeal œdema at any stage of this affection. The lesion clears up characteristically from without mesially, until only a narrow strip of slough is left along the free edge of the cord, the lately affected areas appearing pink in colour. When the slough disappears, the cord remains with rounded edges and there is some slight but rather persistent œdema of its anterior two-thirds. The condition of the cords now resembles that seen in chronic simple laryngitis of catarrhal or nasal origin. This stage may show affections of phonation due to inco-ordination of the laryngeal muscles, a manifestation of one or other of the conditions of myopathic laryngeal paresis, which may persist for varying periods in spite of all treatment. During the existence of the cord lesions Ryland employed with benefit direct applications to the larynx of a weak solution of menthol in liquid paraffin, daily or on alternate days. Later, attention was given to nasal patency and breathing and to the state of the general health.

THE STATE CHILDREN OF NEW SOUTH WALES.

Some months ago we received the report of the President of the State Children's Relief Board of New South Wales, Mr. Alfred William Green, for the year ending April 5, 1918. The demands made on the limited space of this *Journal* has rendered it impossible to publish a summary of its contents at an earlier date.

In his introduction, Mr. Green refers to a change which has been effected in regard to the relief accorded to mothers whose husbands are in hospital. In those cases where the incapacity continues after the return from hospital, monetary aid is continued to the mother of the children for three weeks. The Board submitted the question of making legal provision for mothers with illegitimate children for ministerial consideration. Another matter which has been referred to the Minister of Public Instruction was that of the provision of additional accommodation at the Mittagong Cottage Homes.

State Children Under Control.

According to the *State Children's Relief Act, 1901*, children may be boarded out with their relatives or with strangers until they are 14 years of age, or if they are under eight years of age they may be adopted, with the concurrence of their parents. A child over 14 years of age may be apprenticed, discharged or dealt with in any other way the Board may determine. During the period covered by the report the payments made to parents or foster-parents have been 12s. per week for young ailing infants, 10s. per week for infants under one year of age, 8s. a week for children up to two years of age, 7s. a week for children up to three years of age and 6s. a week for children between three and fourteen years of age. The Board was considering the advisability of requesting the Minister to fix the minimum payment at 7s. a week.

The total number of children placed out was 12,420. Of these, 7,764 were with their mothers and 4,656 with strangers. The expenditure of the Department has totalled £183,356 or £8,853 more than was spent in 1917. This sum includes an expenditure of £14,428 in the Cottage Homes and £16,030 in respect of the Children's, Infants' and Neglected Children's Acts. As a set-off against the total, there was a revenue of £7,837 collected from the parents and others. The number of children boarded out with strangers has remained more or less constant during the past six years, while the number of those boarded out by their own mothers has increased by 32%. Both sets of children are inspected by the salaried officers of the Board and by honorary visitors. The salaried officers of the Board visit these children once a quarter, while the honorary visitors pay more frequent visits. The female Inspectors of the Board are charged with the responsibilty of the welfare and general treatment of infants. They have the duty of instructing the foster-parent or mother, when necessary, in regard to dietary and of arranging for the periodical medical inspection of the children at a children's hospital or clinic or at the house of a private practitioner. The 33 salaried officers paid 34,507 visits to these children and dealt with a large number of applications for the care of State children, for the admission of children, for the discharge of children, etc.. In addition, over 10,000 visits were paid in connexion with this section of their work. Mr. Green records that their duties include inspection under the *Children's Protection Act*, the *Infants' Protection Act* and the *Neglected Children and Juvenile Offenders Act*, and that they have obligations in respect of school attendance. The number of visits paid in this connexion with 5,108.

Children Provided for Apart from Their Mothers.

Of these 4,656 children provided for apart from their mothers, 3,469 were supported entirely by the Government as boarders with guardians and as inmates of the cottage homes, the central depôts or hospitals, 744 were apprenticed and 313 were adopted without payment. The total number of new admissions during the year was 1,218, while 741 children were discharged to their relatives or friends, 218 were discharged on reaching the limit of age, 155 were discharged to guardians, the names of 27 were deleted from the record, 39 were discharged to their own resources, 13 to the Reception House at Darlinghurst and 72 to other institutions. In addition, 16 died and one was accidentally killed. The total number of those discharged aggregated 1,282. This number is 114 less than the corresponding figure for 1917. Of the 1,218 children admitted, 445 were dealt with in the Children's Courts and 21 by the police. No less than 288 of these children were uncontrollable, while 194 were illegitimate and 154 were neglected. The parents were unknown in 34 instances, while 20 of the children were foundlings. In a further 214 cases the parents were either destitute, bad characters, living apart or divorced or they were dead or they had deserted their children. In the remainder of the cases the father was dead and the mother destitute, or the father was respectable and mother was dead, or the father had deserted or was in gaol or in hospital or interned or at the front. In these instances the mother was either dead, in an asylum, in gaol, in a hospital or destitute.

During the course of the year 16 of the State children died. Four of the deaths were due to gastro-enteritis or its sequelæ, two were due to debility, three to diphtheria, one to pneumonia, one to appendicitis, one to scarlatina, one to acute heart failure and one to peripheral neuritis. One child was accidentally killed.

It is pointed out that, except in the case of brothers and sisters, not more than three or occasionally four children are boarded out in any one home. The 4,066 children placed out apart from their parents are housed in 2,672 homes. Six of the homes are of a special character and in them are relatively large numbers of children.

The Board have reached a stage at which they are prepared to set up a revised scale of wages for children placed out in service and to establish a special cottage home for preliminary training of male and female wards prior to service. The total number of children at service was 774. The majority of the boys were engaged on farms, while the majority of the girls were in domestic service. In regard to the question of adoption of children, Mr. Green points out that many of the adoptions are effected without the knowledge of the Board. A bill has been drafted to give the Board more adequate control over adopted children.

Delicate and Feeble-Minded Children.

There are four homes in the Pennant Hills district for invalid, delicate and feeble-minded children and eleven at Mittagong, including three reserved for invalids. At Parramatta one of the homes provides accommodation for feeble-minded girls. The inmates are under the charge of a specially trained teacher. Early in January these children were transferred to a more suitable building in the neighbourhood, standing in six acres of wooded country. The equipment of the new school is said to be modern and well adapted to its purpose. It is an up-to-date Montessori *Kindergarten*. The school-room is attractively ornamented with pictures illustrating fairy tales of a kind that claim the attention of every child, no matter how unobservant. The toy box is well supplied and the children find it an ideal place to play in. We regret to learn that the piano is an old one. An indifferent instrument is not conducive to the best results. Music forms a very important part of the system. Individual teaching is given. This is necessary, since the mental types of the fourteen inmates vary widely. Defective speech, clumsy gait and a tendency toward depraved habits are noted in nearly all the children. The teacher recognizes that the defect in these children is a congenital arrest of mental development, often traceable to degeneracy in the parents. Details of the condition of some of the pupils on admission to the school and of the improvement in their condition are appended. The teacher claims that the children are rendered happier and brighter, more active and more useful. Further care, it is anticipated, will lead to greater improvement. The word "education" is employed in connexion with these children. It is mistaken, for while these children are amenable to a certain amount of training, they are certainly not capable of being educated. The teacher points out that the problem does not end with the childhood. The condition after adolescence is a graver one than before. An eloquent story is told of the tendency of these children to become morbid, vicious and overmastered by their natural instincts. Their ultimate goal, if left uncared for and unprotected, is crime and vice. A plea is made for the continued care of the mentally deficient by the State in properly equipped industrial colonies. Attention is called to the fact that the present system of allowing these children to gain freedom to reach the asylum, gaol,

the maternity hospital and the various refuges is economically unsound and suicidal. Given a life-long protection, these unfortunate individuals can be made relatively happy and to a certain extent useful. Without it they are a menace to the community. Furthermore, the protection suggested is the only means of stamping out the terrible affliction, a human being with the mental powers and instincts of a wild beast.

The Farm Home at Mittagong receives invalid and delicate boys and girls, those who are mentally infirm and those who are morally "debilitated." The invalid and delicate children are housed in the cottage homes and their enfeebled health is combated by sympathetic care, good diet and healthy surroundings. The mentally deficient boys are dealt with in a manner similar to that in which the girls at Parramatta are trained and cared for. Progress up to a certain point is achieved and the result is found to be eminently satisfactory. Unfortunately the good accomplished is rendered nugatory on the release of the children from the homes.

The total number of children admitted to the Cottage Home since their institution stood at 8,811 on April 5, 1918. In the same period 8,453 children were discharged from the homes. There were 358 still in the homes on April 5, 1918, as compared with 335 on April 5, 1917.

Homes for Babies With Their Mothers.

There are three homes for the care of mothers with their babies, one at Eastwood, one at Croydon and one at Paddington. The objects of the institution of these homes are: (*i.*) to keep the young, victimized woman from the demoralizing influences frequently associated with large maternity establishments; (*ii.*) to give expectant mothers a chance to attain some degree of physical fitness for motherhood; (*iii.*) to encourage breast-feeding and the development of maternal affection; (*iv.*) to safeguard the life of the infants during the critical stages of early infancy by keeping them with their mothers and (*v.*) to insure that the mothers shall receive some measure of training in the rearing of infants.

At Eastwood 52 mothers and 95 children were admitted during the year. Ten expectant mothers were also admitted. The average length of stay of the mothers and their infants was 5½ months. At Cicada House, Croydon, 45 mothers and 53 infants were admitted, in addition to one expectant mother. The average length of residence was 4 months. At Hillside House, Paddington, 22 mothers and 107 infants were admitted during the year. The average period of residence of the mothers was 4 months and of the children 5 months.

Children Boarded Out With Their Mothers.

In the second chapter of the report, Mr. Green deals with the arrangements made for the boarding out of children with their own mothers. At the time of the issuing of the report there were 2,640 widows or deserted wives who were receiving allowances toward the support of their children under 14 years of age. The total number of children involved was 7,764. There were 1,414 new applications in the twelve months. Of these 1,129 were granted and 261 refused. In 24 cases a special method of according relief was chosen. In some instances the women were referred to the Chief Secretary's Department or to the New South Wales Benevolent Society. A number of instances of filial neglect to contribute to the maintenance of widowed mothers were encountered. Mr. Green urges that legislation should be introduced to compel near relatives who are in a position to do so, to pay something toward the support of the parents and the younger members of the family. Of the 1,129 women provided with State relief, 587 were widows, 265 were deserted wives and in 277 instances the desertion was technical. The total number of deserted wives receiving the allowance in 1918 was 1,185. In 225 cases the husband was insane, in 126 instances he was in gaol, in 83 he was in an asylum and in 229 he was in hospital. The great increase in the number of desertions during the past twenty years is emphasized. In 1897 the number was 85, in the following year it was 203, in 1910 it was 617 and in 1916 it exceeded a thousand.

The relief payments made in respect of the 7,764 children amounted to 5s. per week in 5,356 cases, to 4s. in 1,197, to 3s. in 268, to 2s. 6d. in 78, to 3s. 6d. in 50 and to 4s 6d. in 8 cases. In a few instances other sums up to 10s. a week were paid under more or less exceptional circumstances.

Infant Protection Act.

The *Infant Protection Act* provides for the supervision, maintenance and care of children up to the age of 7 years of age apart from their parents in private homes or religious establishments. A bill has been drafted with the object of increasing the age of the children to 16 years. Licences were granted to 166 persons and institutions. There are 21 religious and other homes for orphan children and foundlings, maintained by public subscription. The total number of children under 7 years of age under supervision in these institutions was 400. It is recorded that the health of the chargelings was good in the majority of instances. During the year 11 children boarded out apart from their mothers died. In one foundling home and one infants' home, the infants are admitted with their mothers as well as without them.

The Neglected Children and Juvenile Offenders Act.

In the Metropolitan Children's Court there are two sections. In the first cases are dealt with in which the defendants are adults. In this section affiliation cases under the *Infant Protection Act* are also heard. In the second section neglected, uncontrollable and delinquent children are dealt with, and the applications of widows and deserted wives for relief under the provisions of the *State Children Relief Act* are investigated. In the case of 166 children, representing 61 families, the parents were charged with neglect. The cause of the neglect in the majority of the cases was excessive drinking by one or both parents. It is reported that 103 of the children belonging to 42 families were permitted to return home, on the parents showing that they could live soberly. Twelve women, the wives of soldiers serving in France, neglected their children as a result of drink. Nine of these women were able to pull themselves together and were allowed to have their children returned to them. Mr. Green expresses the opinion that there should be a special home for neglected children of soldiers.

The total number of children brought before the Court during the 12 months was 2,396. Some of the cases were withdrawn or dismissed and action was taken in respect of 1,676 children. Of these, 306 were sent to the Farm Homes at Mittagong and Gosford or to the Industrial School and Training Home at Parramatta. In addition, 1,232 were released on probation, 60 were boarded out to Ormond House and 22 were committed to the care of the State Children's Relief Department. The charges included 557 of stealing. In 282 instances the children were regarded as uncontrollable, in 213 the charge was neglect, in 70 the charge was breaking the terms of probation and in 25 the charge was improper guardianship. A number of tables are published, showing the nature of the offences or charges in each group of children. As usual, some of the offences are not of a serious character, such as exploding fire-works, trespassing and collecting old wares without a licence, while others are of the gravest nature, including indecent assault, setting fire to a home, forgery, burglary and attempted suicide. There were 31 cases of truancy. In 23 cases the parents were fined a small amount and only one child was committed to the Truant School.

Adjoining the Court is the Metropolitan Boys' Shelter. This institution has been established (*i.*) for the detention of boys committed to institutions while investigations are being made; (*ii.*) for the detention of boys apprehended by the police, pending the decision of the Court; (*iii.*) for the detention of boys remanded, until a report has been obtained concerning the character of the home; (*iv.*) for the detention of boys remanded for discipline and for mental and medical examination and (*v.*) for the detention of boys sentenced to imprisonment in default of payment of fines. The total number of boys admitted to the Shelter during the year was 1,510. Dr. Stewart visited the Shelter three times a week and examined all children who appeared to be mentally, physically or morally defective. Of 223 boys thus examined, 44 were found to be retarded in their mental development. In 33 instances a physical defect was discovered.

Neglected Children and Juvenile Offenders Act.

According to the provisions of the *Neglected Children and Juvenile Offenders Act*, no child is permitted to hawk newspapers or other articles in the street, to sing or to perform for profit or to carry out any light occupation in a public

place, without a licence. No licence is issued for street trading to girls nor to any boy under 12 years of age or for certain occupations under 14 years of age. The total number of licences in operation at the time of issuing the report, was 782. Close supervision was exercised to determine that the provisions of the *Act* were being complied with. In four instances boys were fined for being in the employ of news agents, without possessing a licence. No charge is made for the licence, but a deposit of 1s. 6d. is required and is refunded when the badge is returned. Mr. Green deprecates street trading without very strict supervision and considers that no child under 14 should receive a licence.

Children's Protection Act.

In the fifth section of his report, Mr. Green deals briefly with that part of the Board's activities which is governed by the *Children's Protection Act*. This measure provides for the supervision of infants up to the age of three years, who are placed in foster homes for payment apart from their parents. The inspection of nursing homes and the control of infants born in lying-in institutions also come under the purview of the *Act*. The total number of children registered under this *Act* during the year 1917 was 1,112. During the course of the year 151 of these children passed out of supervision, on reaching three years of age. There were 306 children discharged to their parents and 39 discharged to the control of the State Children's Relief Board. In addition, 48 children were sent to hospitals and other institutions, while 34 were adopted. The number of deaths was 34.

Theatre licences were granted to 240 children during the year. These children are over ten years of age and those who are under 14 are not permitted to travel with touring companies. Strict supervision is required to protect the moral and material interests of the children engaged.

An announcement has been published in the public press to the effect that Mr. John D. Rockefeller has given the sum of £4,000,000 to the "General Education Board" (the body referred to its probably the Council on Medical Education of the American Medical Association) for the improvement of medical education in the United States.

We regret to announce the death of Dr. Norman James Gerrard, of Elsternwick, Victoria, which took place on September 27, 1919.

Hospitals.

THE ADELAIDE HOSPITAL.

The annual report of the Board of Management of the Adelaide Hospital for the year 1918 is an excellently got up brochure, freely illustrated and well printed.

Statistical.

The Adelaide Hospital is a governmental institution which derives its revenue largely from consolidated funds, to a smaller extent from fees paid by patients within the Hospital and for work done in the bacteriological department and to a small extent from public contributions. The sum of £882 was contributed during the year, including £277 from the South Australian Railway Hospital Fund and approximately £150 from various corporations and district councils. The Government provided £40,899 out of a total of £48,569. Of this sum, £39,659 was spent on the Adelaide Hospital itself, £4,069 on the Consumptives' Home, £3,142 on the infectious diseases block and £1,699 on the bacteriological department. The annual cost of each occupied bed averaged £119 17s.. In the year 1870 the cost per bed was only £46 9s. 2½d.. The amount spent on the maintenance and treatment of patients has increased steadily from that date and reached its highest point in 1917, when no less than £133 11s. 8d. was spent on each occupied bed. During the 48 years of its existence the number of patients in the Hospital at any given time, has become doubled. The average number of patients in the wards during 1918 was 314, while the total number of patients admitted was 5,292. There were on the first day of the year 246 patients in the Hospital and on the last day 267. There were 4,848 patients discharged, of whom 423 were unrelieved and in addition 432 died. The mortality, calculated according to the Registrar-General's formula, was 8.13% and not 8.02%, as stated in the report. During the year 35 patients suffering from enteric fever were treated in the Hospital. This constitutes a record, being the smallest number of patients treated for this disease. Only one patient died. There were 56 patients suffering from influenza, 87 from pulmonary tuberculosis, 57 from other forms of tuberculosis, 28 from syphilis, 72 from gonorrhœa, 232 from malignant disease, 94 from acute rheumatism, 119 from alcoholism, 139 from heart disease, 161 from other diseases of the cardio-vascular system, including cerebral hæmorrhage, 95 from pneumonia, 276 from appendicitis and typhilitis, 190 from accidents of pregnancy, 50 from accidents of labour, 35 from puerperal septicæmia and 72 from Bright's disease.

Medical Staff.

The principle that has been followed since the outbreak of war of refraining from permanent fresh appointments to the honorary staff, has been continued. Several members of the honorary medical staff have been re-appointed for a further term of three years. Some of the honorary medical officers who returned during the course of the year from active service abroad, resumed their duties in the Hospital.

Infectious Diseases.

An endeavour has been made to introduce legislation in order to prevent the evasion of responsibility by local boards of health for the payment of the cost of maintenance of persons suffering from infectious diseases who are sent in by these local authorities.

Venereal Diseases Clinic.

A night clinic for the treatment of persons suffering from venereal disease has continued to provide treatment for a considerable number of persons. There were 336 new male patients and 43 new female patients. The total number of patients under treatment was 558. The clinic is under the control of Dr. H. Rischbieth, who devotes three evenings a week in an honorary capacity to this work. He is assisted by medical students, who offer their services voluntarily, while the remainder of the staff consists of a dispenser, a clerk, two nurses and two porters. The cost of the clinic amounted to £712, including £235 spent on arseno-benzol drugs, £146 on salaries, £142 on fees for laboratory work, £97 on medicines and £77 on the indoor treatment of patients. The chairman points out that many of these patients could afford to pay a small fee in return for the great advantages they receive. The amount collected from the male patients was £7 10s. 6d. It is urged that similar clinics without elaborate equipment should be established in connexion with the public hospitals at Port Adelaide, Port Augusta, Port Pirie and Mount Gambier.

The Influenza Epidemic.

Early in November of 1918 steps were taken to provide accommodation for patients, should influenza break out in the State. An unused building in connexion with the infectious diseases block was put into repair and 40 beds were provided. A separate nursing staff was appointed and all the arrangements were made to keep this building apart from the rest of the institution. On January 21, 1919, a patient was admitted with an indefinite history and there was some doubt in regard to the diagnosis, even after the death of the patient. Three days later two convalescing patients who had occupied beds next to that occupied by the patient, and the night charge nurse became ill. These three patients were promptly isolated and as soon as it became evident that they were suffering from influenza, they were transferred to the infectious diseases block. A ward maid and two other night nurses were also infected within a few days, while at a later date 18 persons who had been in contact with the original patient, became ill. The attention of the medical officer of health for Adelaide and of the Chairman of the Central Board of Health was drawn to the circumstances. Means were taken to verify the nature of the illness towards the end of the month. The Medical Superintendent reported at a later date to the Board that the infectious diseases block was full and that the nursing staff was in-

capable of handling a larger number of patients. Representations were made to the authorities, with the result that the Exhibition Isolation Hospital was opened on February 2, 1919, and the 45 patients under treatment were removed to the emergency hospital. These patients included 16 nurses. Four nurses of the Hospital were sent to the Exhibition Hospital with the patients. These nurses returned ten days later. It transpired subsequently that the epidemic did not assume serious proportions and that it might have been possible to have met the situation without the establishment of the emergency hospital. The Chairman, however, points out that the infectious diseases block is frequently overcrowded and that it is unsuitable for an emergency. He therefore claims that it was expedient to press for the establishment of the Exhibition Hospital. Great care was exercised to avoid any spread of infection when nurses and patients were discharged from the Exhibition Hospital and re-admitted to the Adelaide Hospital. The Board expresses its thanks to the Medical Superintendent for the manner in which he carried out his duties, not only during this exceptionally trying time, but also throughout the whole year.

The Consumptives' Home.

The Consumptives' Home, which, although distinct from the Adelaide Hospital, is under the same management and is regarded as an annex to the institution, admits patients suffering from pulmonary tuberculosis and from malignant disease. The number of those admitted into the wards set aside for tuberculosis was 76. There were 40 patients in the Home at the beginning of the year and 35 at its termination. The number of deaths was 65, while 16 patients left the Hospital. In the cancer section there were 35 patients admitted. There were 13 patients in the Hospital on January 1, 1918, and 12 on December 31, 1918. Thirty of these patients died.

The Infectious Diseases Block.

In the infectious diseases block 351 patients were under treatment for diphtheria. Of these patients, six were suffering from diphtheria and scarlatina and four from diphtheria and varicella. There were 332 patients admitted with uncomplicated diphtheria, while nine were under treatment at the beginning of the year. The total number of deaths was 16, which represents a case mortality of 4.8%. Two of the patients with complicated diphtheria also died. The number of patients suffering from scarlatina admitted was 122. Four of the infections were complicated by varicella. There were three deaths. Only a few cases of cerebro-spinal meningitis, morbilli, parotitis, varicella and other common infective processes, were dealt with. There were 50 patients admitted suffering from erysipelas, in addition to four who were already in Hospital at the beginning of the year. Of these patients, five died.

The Laboratory of Bacteriology and Pathology.

In the Laboratory of Bacteriology and Pathology the clinical examinations of the Hospital and similar work for private practitioners and outside institutions, are conducted. The amount of work undertaken for the Hospital during the year was relatively large. In connexion with the night clinic 354 Wassermann tests were performed, in addition to 163 of the blood of patients in other departments of the Hospital. We are unaware of any other institution in South Australia where the Wassermann test is carried out. In these circumstances, it is significant that only 91 specimens were submitted for examination by private practitioners. In the stock department the routine work embraced the examination of diseased tissues and the bacteriological examination of milk. During the year an investigation was started, with the object of determining the nature and cause of a braxy-like disease of young sheep. The work undertaken in the vaccine department is larger than that carried out in previous years. The total expenditure for the year was £1,699 and the fees received for work done was £1,315.

Obituary.

HAROLD SOUTH.

News has been received that Captain Harold South died on September 9, 1919, at the Warmington Australian Military Hospital while undergoing an operation.

Harold South was born at Tapanui, South Island, New Zealand, on June 11, 1875. He was the son of the late Reverend G. F. South. He went to school at Bendigo and entered the University of Melbourne about the year 1892. He was at Trinity College. As a student he achieved marked success and was regarded as one of the brilliant men of his year. He took honours in all subjects and graduated in 1897. While applying himself very ably to his science, he took a prominent part in the world of sport. He was chiefly interested in rowing. He secured a place in the Trinity boat and organized and stroked a "medical boat," which was victorious on the river in 1896. He was a good football player and could hold his own at tennis. This combination of brilliant studentship and excellence in the field of sport secured for him great popularity among his colleagues. He was ever courteous and never failed to extend a helping hand when his greater knowledge gave him the opportunity. His fellow-students and his teachers recognized his unusual ability and marked him as a man with a distinguished future.

After graduation he obtained a house appointment at the Melbourne Hospital and in 1899 he was appointed a resident medical officer at the Women's Hospital, Melbourne. In 1900 he became resident medical officer at the Hospital for Sick Children at Brisbane. At all these institutions he acquitted himself well and commanded the good opinion of all with whom he came in contact. At the end of his hospital term he entered into partnership with Dr. Simson Stuart, at Rockhampton, where he worked well until 1905. For a short time he did some temporary work at Southport and then established himself at Boonah, where he practised for over eleven years. His sound knowledge of his profession, his reserved, grave and kindly manner, his sympathetic bearing and readiness to help endeared him to the people of Boonah. His work as Medical Superintendent of the Boonah Hospital was excellent.

In February, 1917, he obtained a commission in the Australian Military Forces, Army Medical Corps, and was detailed for duty at the Kangaroo Point Military Hospital. In April, 1918, he was transferred to the Australian Imperial Force and was sent abroad shortly after. On arrival in England, he was stationed at a military hospital at Dartford, in Kent. There are no available details concerning his transference to Salisbury, nor of any illness necessitating an operation.

The sympathy of his colleagues is extended to his widow and their four children, and also to his brother, Dr. Arthur E. South, of Geelong.

Special Correspondence.

(By Our Special Correspondent.)

CANADA LETTER.

Rehabilitation of the Disabled Soldier.

In Canada the terms occupational therapy and industrial re-education are employed, the first to denote the work done in the hospitals of the Department of Militia and Defence, which is principally curative, but also includes vocational work under the direction of medical officers. This means that the man is given whatever training is considered desirable with due regard to his physical and mental condition. Training given in the wards to such men as cannot leave the hospital is called ward occupation.

Industrial re-education is the term given to the work undertaken by the Department of Soldiers' Civil Re-establishment, after the man has left the military hospital, which formerly was under the direction of the Military Hospitals Commission. In the development of a policy of re-education by the Department of Soldiers' Civil Re-establishment, it became apparent that something must be done to prevent re-educated soldiers competing against each other in a certain narrow group of occupations in which training was practicable in the institutions established for that purpose. An industrial survey of the Dominion was, therefore, undertaken and the country has been divided and subdivided into districts. In each industry an analysis has been made of the different occupations therein, with information as to the kind of work done, the payment, working hours, qualifications required, and so on, and it has been decided to train

the men, whenever possible, in shops where they will later be employed, as this gives greater diversity of opportunity. The character of the work to be undertaken is considered in relation to the man's disabilities. For instance, it is determined whether the position at work would aggravate any weakness or disability, etc. In deciding upon the training to be given to each individual, the vocational officer first considers the man's choice and then his hobbies and natural preferences, and the productivity of and demand for the class of work chosen, leading the man if possible to take up a technical or industrial, rather than a clerical, occupation. In short, the combined knowledge of the medical and vocational officers is utilized to guide the disabled soldier into a field of productivity compatible with his state of health. This has the object of making him independent in the years to come when people may begin to forget the cause of his disability and the service he has rendered his country. When training is completed and the man placed in a position, every effort is made to keep in touch with him by means of a "follow-up" system. At the present time, training is given in occupations to the number of 179. It has been found in Canada, as well as in England, that the positions of chauffeurs and clerks are those most frequently chosen, and this is so much so that whenever possible the man is persuaded to take up some other line in which the demand for his labour will be greater.

One of the great difficulties in the problem of rehabilitation of the disabled soldier is to bridge over the period between convalescence and re-adjustment to civilian life. The public, and particularly the employer, can do much by a little sympathy and kindness towards the soldier who is trying to adjust himself to his new environment.

The following figures give some idea of the work being done in Canada. Up to August 1, 1918, 5,045 courses in industrial re-education had been granted. In the curative workshops, 1,991 convalescents were working at that time, and 1,990 men were taking courses in industrial re-education. During the month of June, 1,743 men attended classes in occupational therapy conducted by the Department of Soldiers' Civil Re-establishment in military hospitals.

Men suffering from pulmonary tuberculosis are discharged from the Army as soon as the condition is diagnosed and their care and treatment is undertaken by the medical branch of the Invalid Soldiers' Commission. The duties of this branch include also the medical care of all men undergoing industrial re-education, the dental care of such men, and also of discharged soldiers suffering from dental defects due to war service, the care of the permanently insane, the epileptics, feeble-minded and incurables, as well as men requiring prolonged institutional treatment. Tuberculous patients, of course, are treated in the various sanatoria throughout the country, and the insane are sent to the provincial asylums. The case of the feeble-minded and epileptics is still under consideration. It is probable that they will be given institutional care, and one institution has already been established for their treatment. Others will probably be opened, and it is possible that a farm colony may be established. Homes for the care of incurables are to be established in each district; one (Euclid Hall) has already been opened in Toronto. In case of recurrence of war disability, the patient will be sent to an Army Medical Corps or local hospital and taken on the strength of the Invalid Soldiers' Commission, *i.e.*, he will receive Invalid Soldiers' Commission pay and allowance and be treated by Invalid Soldiers' Commission medical officers, the great majority of whom have seen active service during the war, and therefore are familiar with the soldiers' problems.

In Alberta a 300-400 bed sanatorium is in process of construction at Bowness, about eight miles from Calgary. This will later be expanded to accommodate 500 tuberculous patients. It is the intention to build a recreation building with theatre, a billiard room, library, post office and vocational training shops. When no longer required for military patients, these buildings will constitute a sanatorium for the civilian needs of the province. At the Conference of Medical Superintendent Caring for Tuberculous Soldiers in Canada, in May, 1918, it was the general opinion that it was not desirable to establish a course in motor mechanics for patients suffering from tuberculosis, and it was resolved that a committee be appointed to cosider what courses of training were suitable for such patients. It was pointed out that the wage-earning capacity of the tuberculous soldier was of the greatest importance, as in order to maintain his efficiency and as high a state of physical condition as possible such a man required a higher standard of living than the average. It was also thought inadvisable to plunge a man into civilian life at once upon leaving the sanatorium. The question of a central research laboratory for the Dominion was brought up at this meeting. It was pointed out that advantage ought to be taken of the present opportunity for research work. It is probable that a central laboratory will be established near Toronto with facilities for research in tuberculosis. In the meantime, it may be possible to make arrangements with university and provincial health laboratories to carry on some of this work.

A new branch of the Invalid Soldiers' Commission has been formed which is called the Orthopædic and Surgical Supplies Branch, which has charge of all matters relating to the issuance and repair of artificial limbs and other appliances. The headquarters of this department is in Toronto, but branch depôts are being established at Calgary, Edmonton, Victoria, Regina and Saskatoon, where fitting rooms will be provided so that repairs and renewals can be attended to at these places. Limbs and appliances are made at the Invalid Soldiers' Commission factory in Toronto; and new appliances are devised and standardized at Hart House, Toronto. (An account of the work being done at Hart House has already been published in this journal.)

Danger of Soothing Syrups.

In view of the widespread use of soothing syrups by mothers throughout Canada, it was resolved, at the annual meeting of the Public Health Services of the Province of Quebec, that steps should be taken to see that such preparations were analyzed and labelled as poison. This matter has been discussed at a number of other medical gatherings, it being pointed out that mothers are endangering the lives of their infants by the use of these drugs.

Effect of Alcohol Restriction.

The Manitoba Medical Association, at its annual meeting in June, 1918, recorded its conviction that the restriction placed on the use of alcohol in the province had resulted in the physical, moral, and economic betterment of the people. In Ontario, the Medical Council recently laid down the rule that "orders for the procurement of alcoholic liquor are justified only when the physician of his own knowledge is satisfied that same is necessary and proper for the treatment of the patient and on no other ground whatever." The quantity to be prescribed was limited to a quarter of a litre.

Enlistment of Medical Students.

A resolution was passed at the annual meeting of the Ontario Medical Council requesting the Department of Militia and Defence to reconsider the regulations of the *Military Service Act* in their effect on the profession. It was pointed out that the reduction of medical students, through enlistment and conscription, must result in a complete breakdown of the medical services. The Council suggested that young men who had completed their preliminary education and entered upon the study of medicine before reaching military age, should be permitted to continue their professional studies, and that the privileg accorded to medical students who had completed one year of study of continuing their studies, should be extended to men who, prior to enlistment, had completed matriculation or entered arts or science courses, in preparation for the study of medicine. It was further resolved that, in view of the percentage of physically unfit revealed by medical examinations for military service, some form of State supervision of the health of the country should be instituted.

Correspondence.

ANCHYLOSTOMIASIS IN NEW SOUTH WALES.

Sir,—In connexion with Dr. Goldsmid's letter *re* anchylostomiasis in New South Wales, appearing in your issue of September 13, 1919, I may say that as far back as 24 years ago I recorded a case occurring in this State. The patient

was a child, aged 14, who was admitted to the Brisbane Hospital, of which institution I was at that time one of the resident medical officers. He was born in England, but had been in Australia five years. During the whole of this time he had never been out of New South Wales, having lived with his parents at Cudgen, Tweed Heads, near the Queensland border. The case proved fatal and the diagnosis was confirmed by a post mortem examination. So far as I know this was the first recorded case occurring in New South Wales. A full account of it may be found in the *Australasian Medical Gazette* of November, 1895.

Yours, etc.,

C. H. E. LAWES.

Petersham, New South Wales,
September 25, 1919.

TREATMENT OF RETROFLEXIO UTERI.

Sir,—I regret that I was not present at the Branch meeting when Dr. Ritchie read his paper. I have perused it and the discussion, and I do not think that any of the speakers have made the subject much easier for those who are not gynæcologists.

I hope that the following remarks may help some of those who are looking for guidance in a field where views are as opposed as they were twenty years ago, when Joseph Foreman maintained that the Alexander operation was a good one and we laughed at him. Let me admit that I am sure that he was right and that we were wrong. The Alexander operation is one of the best operations in surgery, now that it has been brought to perfection by Goldspohn and myself. I shall deal with the "perfection" presently. In the meantime, let me put forward a simple plan by which cases of retroflexion may be classified:—

(*a*) The patient has a retroflexion; she has had no children and has no rupture of her pelvic floor.
(*b*) The patient has a retroflexion; she has had children and has a rupture of her pelvic floor. She is between 20 and 42 years of age.
(*c*) The patient has a retroflexion, she has had children and has a rupture of her pelvic floor. She is over 42 years of age.

Here, then, broadly, we have the three classes into which we can place most of our patients for practical purposes.

Class A.—The patient has a retroflexion, she has had no children, or, if she has had children, she has no rupture of her pelvic floor; in short, no prolapsus. This is the ideal condition for the Alexander operation. To shorten the ligaments means that we pull the uterus up into place and by so doing we raise the ovaries and tubes and the backache then ceases. If a woman had no ovaries or tubes, the position of the uterus would matter little; the symptoms of a displaced uterus are largely due to the symptoms which displaced tubes and ovaries give rise to.

If the uterus and the appendages are bound down, this would be a bar to the operation as done by Alexander, but independently Goldspohn and myself found that we could slip our finger along the round ligament into the peritoneal cavity, liberate adhesions and let the uterus and its appendages come up into position. This manœuvre gave the Alexander operation a new lease of life, because I soon found that in cases where there were no adhesions, no matter how the round ligaments were pulled upon, the uterus did not come into a satisfactory position; when, however, the finger was slipped along the ligament and entered the peritoneal cavity a little manipulation soon brought the uterus into correct position.

Class B.—The patient has a retroflexion, she has had children and has a rupture of the pelvic floor, and she is between 20 and 42 years of age.

Fifty per cent. of the patients that consult me for retroflexion come under this class. These patients have had children and want to have more. We, therefore, want an operation that will restore the uterus to its proper position and at the same time will not prevent the patient having children and will do something to correct the prolapsus due to the ruptured pelvic floors. To employ the Alexander operation under such circumstances is only to court failure; the Alexander will bring a uterus back to an anteverted position, but it is powerless to correct any degree of the prolapsus of the uterus and vagina. We must, therefore, look for another operative procedure. The Gilliam operation is as good as any I have tried; in fact, I used it long before I knew that Gilliam had invented it. The operation that I employ most frequently is one that aims at raising and supporting the uterus and ovaries by bringing the round ligaments through the broad ligaments and stitching them together with silk at the lower part of the posterior surface of the uterus. I am, however, willing to admit that the procedure does not produce all that we desire, and I must admit that as far as I know, we are still seeking for a satisfactory procedure to apply to this class of cases.

Class C.—The patient has a retroflexion, she has had children and has a rupture of the pelvic floor, and she is over 42 years of age. Here we can deal with the difficulty more satisfactorily, because, after doing the plastic work on the vagina, we can then draw the uterus up and firmly fix the uterus to the abdominal wall by silk sutures, having first tied off the tubes with silk.

From the above it appears that Class A and Class C can be satisfactorily dealt with, while Class B, comprising 50% of our cases, cannot be dealt with to our entire satisfaction, because we cannot fix the fundus of the uterus, as the patients are still in the child-bearing period. Gilliam's operation helps to raise the uterus and, by elevating it, tends to do away with the concertina-like condition of the walls of the vagina. The operation that I advocate helps in the same way, but the result is often not entirely satisfactory, and it appears to me that no operation that has yet been suggested is likely to be entirely satisfactory.

Yours, etc.,

W. J. STEWART McKAY.

227 Macquarie Street, Sydney,
September 24, 1919.

THE TREATMENT OF ECZEMA.

Sir,—May I have an inch or two of your space to ask from some of our dermatologists in the cities for some assistance in the treatment of a child who is covered with a more or less chronic eczema? The child is now eight months old—a fine boy—so far as I can find absolutely healthy in all other respects. The eczema was, according to the mother, present at birth, though neither she nor the father have any skin troubles in the family. It has persisted and resisted all treatment up till a little while ago, when I saw the case first. Collosol sulphur (Crookes), both as a mixture and as a cream have caused a vast improvement on the body and limbs. The face, however, resists treatment. The skin is vesiculated, and, despite the greatest care on the part of the parents, the child overcomes devices for preventing scratching and rubbing, with the result that the skin is quite raw. Glandular enlargement is excessive, and at present the child can hardly turn its head. It is not possible for the parents to move to a city to obtain treatment by a specialist, and I would appreciate any advice from any dermatologist who will write to me.

Yours, etc.,

JOHN S. SMYTH.

Guy Street, Warwick, Queensland,
September 27, 1919.

Books Received.

ESSENTIALS OF PHYSIOLOGY, by F. A. Bainbridge, F.R.S., M.A., M.D., F.R.C.P., and J. Acworth Menzies, M.A., M.D., Third Edition; 1919. London: Longmans, Green & Company; Demy 8vo., pp. 484, with 179 illustrations. Price, 12s. 6d. net.

SHELL SHOCK AND ITS LESSONS, by G. Elliot Smith, M.A., M.D., F.R.C.P., F.R.S., and T. H. Pear, M.A., B.Sc.; 1919. London: Longmans, Green & Co.; Crown 8vo., pp. 135. Price, 1s. 6d..

Medical Appointments.

Dr. Walter C. Mansfield (B.M.A.) has been appointed Honorary Surgeon for the Nose, Throat and Ear at the Coast Hospital, Little Bay, New South Wales.

The appointment of Dr. E. T. Thring (B.M.A.) as an additional Honorary Surgeon to the Coast Hospital, Little Bay, is also announced.

Dr. J. T. Anderson (B.M.A.) has been appointed Government Medical Officer at Picton, New South Wales.

For the purposes of *The Workers' Compensation Acts, 1916 to 1918*, Dr. J. Ross has been appointed a Medical Referee for the whole of the State of Queensland.

Dr. F. S. Thomas (B.M.A.) having resigned, Dr. H. S. McLelland (B.M.A.) has been appointed Medical Officer at Maryborough, Queensland.

Dr. Charles Stanley (B.M.A.) has been appointed Medical Officer of Health in the Borough of Stawell, Victoria, and Dr. Reginald Bishop Perrins (B.M.A.) has been appointed to a similar position in the Shire of Mulgrave, Victoria.

Dr. James Hamilton Fleming (B.M.A.) has been appointed a public vaccinator for the South-Western District of Victoria.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xxiii.

University of Sydney: Professor of Medicine.

Public Service Commissioner's Office, Adelaide: Junior Medical Officer, Mental Hospital, Parkside, South Australia.

The Hookworm Campaign, Queensland: Three Medical Officers for Field Units.

Department of Public Instruction, New South Wales: Principal Medical Officer.

Commonwealth Public Service, Quarantine Branch: Four Medical Officers.

Walter and Eliza Hall Travelling Medical Fellowship.

Sydney Hospital: (*a*) Temporary Relieving Honorary Assistant Ophthalmic Surgeon. (*b*) Temporary Honorary Assistant Radiographer.

Department of Public Health, Queensland: Medical Officer.

Hospital for Sick Children, Brisbane: Resident Medical Officer.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges, Institutes, Medical Dispensaries and other Contract Practice. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Cloncurry Hospital.
TASMANIA. (Hon. Sec., Macquarie Street, Hobart.)	Medical Officers in all State-aided Hospitals in Tasmania.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIA. (Hon. Sec., 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United Friendly Societies' Dispensary. Canterbury United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Friendly Society Lodges at Lithgow. Friendly Society Lodges at Parramatta, Auburn and Lidcombe. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Newcastle Collieries—Killingworth, Seaham Nos. 1 and 2, West Wallsend. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phœnix Mutual Provident Society..
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

Oct. 7.—Tas. Branch, B.M.A., Branch and Council.
Oct. 7.—N.S.W. Branch, B.M.A., Council (Quarterly).
Oct. 10.—N.S.W. Branch, B.M.A., Clinical.
Oct. 10.—Q. Branch, B.M.A., Council.
Oct. 10.—S. Aust. Branch, B.M.A., Council.
Oct. 14.—N.S.W. Branch, B.M.A., Ethics Committee.
Oct. 15.—W. Aust. Branch, B.M.A., Branch and Council.
Oct. 16.—Vic. Branch, B.M.A., Council.
Oct. 17.—Eastern Suburbs Med. Assoc. (N.S.W.).
Oct. 18.—Northern Suburbs Med. Assoc. (N.S.W.).
Oct. 21.—Tas. Branch, B.M.A., Branch and Council.
Oct. 21.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
Oct. 24.—Q. Branch, B.M.A., Council.
Oct. 28.—N.S.W. Branch, B.M.A.; Medical Politics Committee; Organization and Science Committee.
Oct. 29.—Vic. Branch, B.M.A., Council.
Oct. 30—S. Aust. Branch, B.M.A..
Oct. 31—N.S.W. Branch, B.M.A..
Nov. 3 to 12—Vic. Branch, B.M.A.; nominations received for Council.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney.